DOCUMENT RESUME

ED 198 402 CE 028 214

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SPONS AGENCY	Health Resources Administration (DHEW/PHS), Bethesda, Md.
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ABSTRACT

This annex supplements the Puerto Rico Experimental Model Dental Training Program Comprehensive Report (CE 028 213) and is comprised of exhibits A through F. Among the information included in the exhibits is the experimental model schedule, the schematic representation, the content display, and the course outlines for all courses in the program. Each course outline provides the following information: (1) course title, (2) credit hours, (3) length, (4) teaching methodology, (5) course description, (6) objectives, (7) schedule of instructional periods, (8) media needed, (9) evaluation methods, (10) pre-requisite courses, and (11) references. (LRA)

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ED198402

PUERTO RICO EXPERIMENTAL MODEL
DENTAL AUXILIARY TRAINING PROGRAM

The Comprehensive Report

Exhibits A to F

CE 028214

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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Exhibit A

STAFFING CHART

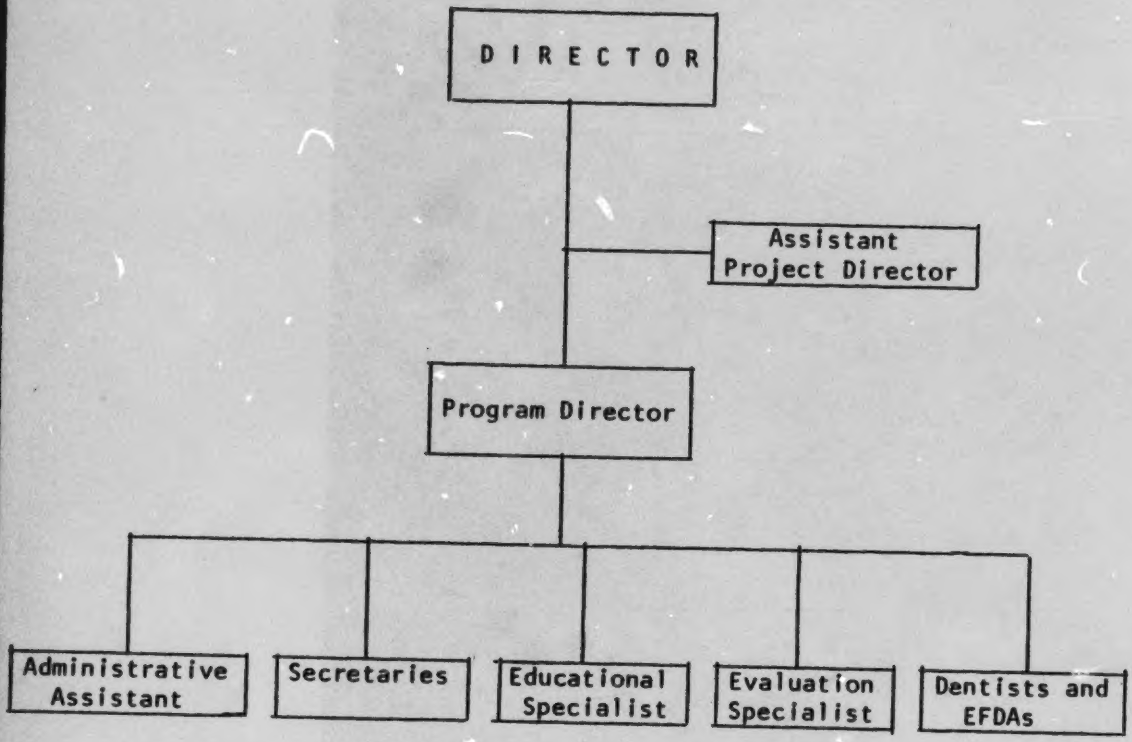
DIRECTOR
Assistant Project Director
Program Director
Administrative Assistant
Secretaries
Educational Specialist
Evaluation Specialist
Dentists and EFDAs

Exhibit B

PUERTO RICO EXPERIMENTAL MODEL SCHEDULE

PROJECT PHASES	TASKS/PHASE	RESOURCES UTILIZED (PERS. &/OR FACILITIES)	DATES	
			START	COMPLETION
B1	Develop Org. Plan		10/24	11/22/76
	1. Prepare org. diagrams	Project Director	10/20/76	11/11/76
	2. Prepare program detailed budget	" "		11/12/76
	3. Secure curriculum vitae of personnel	" "		11/13/76
	4. Describe role of personnel	" "		11/17/76
	5. Describe role of dental school	" "		11/17/76
	6. Describe role of college	" "		11/17/76
	7. Send implement. plan to P.O.	" "		11/17/76
	8. Administrative assessment of work performed to date (staff meeting hold weekly)	" "	10/24	11/22/76
B2	Interview & Hire Personnel	Project Director	10/3	11/5/76
	1. Search for potential staff candidates		10/4	11/5/76
	2. Interview candidates for project Assistant Secretary and Educational Specialists	" "	10/6	10/20/76
	3. Receive P.O. approval	" "	10/22	11/1/76
	4. Hire process of accepted candidates	" "	11/1	11/5/76
	5. Administrative assessment through coordination with C.P.R.S. Dean	" "	10/3	11/5/76
B3	Describe and Justify Proposal	" "	10/11	11/12/76
	1. Staff meetings for			
	a. Project orientation			10/13/76
	1. objectives 2. scope 3. literature			

PROJECT PHASES	TASKS/PHASE	RESOURCES UTILIZED (PERS. &/OR FACILITIES)	DATES	
			START	COMPLETION
B3	b. establish staff roles			
	c. assign specific tasks	Project Director		
	2. Describe rationale for restructuring the Dental Auxiliary Training Program in Puerto Rico	Staff	10/10	11/4/76
	3. Describe the Experimental Model Conceptual Plan	Staff	10/10	11/4/76
	4. Send description and rationale of Proposal to P.O.	Project Director		11/12/76
	5. Administrative Assessment of Phase B3	Staff	11/5	11/26/76
B4	Develop Implementation Plan (Draft)			
	1. Prepare draft on curriculum develop plan			
	a. Formulate Educational Philosophy	Staff	11/5	11/8/76
	1) Determine society and dental profession needs			
	2) Develop dental auxiliary profile			
	3) Determine program goals			
	b. Determine Program Scope	Staff		11/9/76
	c. Establish Curricular Structure	Staff		11/9/76
	d. Prepare draft on curriculum assessment	Educational Specialist		11/10/76
	1) Establish objectives			
	2) Develop criteria and instruments			

PROJECT PHASES	TASKS/PHASE	RESOURCES UTILIZED (PERS. &/OR FACILITIES)	DATES	
			START	COMPLETION
B4	2. Identify facilities and personnel	Project Director		11/10/76
	a. Appoint curriculum committee			
	3. Prepare draft on administrative assessment plan	Staff		
	4. Send implementation plan to P.O.	Project Director		11/12/76
	5. Administrative assessment of Phase B4	" "		11/19/76
B5	Appoint and Meet Advisory Group			
	1. Search for potential candidates	Project Director and Assistant Director	9/24	10/15/76
	2. Determine availability of potential candidates		10/15	10/27/76
	3. Get approval of candidates from P.O.	" "	11/5	11/10/76
	4. Appoint advisory group	" "	11/10	11/17/76
	a. Send description of proposal and implementation plan (Draft)	" "		11/12/76
	b. invite for meeting indicating the purpose			11/8/76
	5. Advisory group meeting	Staff	12/8	12/10/76
	6. Administrative assessment			
B6	Develop Implementation Plan (Final)			
	1. Incorporate AG's acceptable suggestions to the Implementation Plan	Staff	12/16	12/24/76
	2. Send Final Impl. Plan to P.O.	Project Director		12/24/76
	3. Administrative Assessment of Phase B6	" "	12/16	12/24/76
	4. Receive P.O. approval of B6		12/24/76	1/10/77

PROJECT PHASES	TASKS/PHASE	RESOURCES UTILIZED (PERS. &/OR FACILITIES)	DATES	
			START	COMPLETION
B7	Develop the 01 Year Curriculum (Draft)		1/10	2/23/77
	1. Identify content and Teaching Strategies for:	Ed. Spec. & Curriculum Committee	1/10	1/17/77
	a. Chairside Auxiliary - 6 months			
	b. EFDA (Restorative & Basic Prev.)- 9 months			
	2. Establish instructional objectives	Assistant Director	1/17	1/24/77
	3. Select teaching strategies	" "		
	4. Prepare course outlines and schedules	Ed. Spec. & Curr. Comm.	1/31	2/14/77
	5. Identify resources to be used	Project Director & Assist. Direct.	1/10	2/23/77
	a. Materials			
	b. Time			
	c. Instruments			
	d. Personnel			
	6. Identify evaluation criteria and instruments	Ed. Spec.	2/7	2/21/77
	7. Adm. assessment of B7	Project Director	1/10	2/23/77
B8	Convene Advisory Group Meeting		2/23	3/30/77
	1. Prepare agenda and material (output of IB7) for Adv. Group	Assistant Director	2/25	2/28/77
	2. Send invitations for meeting	Project Director	2/25	2/28/77
	3. Advisory Group meeting		4/18	4/20/77
	4. Submit the finalized 01 year curriculum to P.O. for approval	Project Director		6/1/77
	5. Adm. assessment of Phase B9	" "	3/30	6/1/77

PROJECT PHASES	TASKS/PHASE	RESOURCES UTILIZED (PERS. &/OR FACILITIES)	DATES	
			START	COMPLETION
	5. Receive P.O. approval on B9	Project Director	6/1	6/15/77
	Summer Recess			
B10	Implement 01 Year Program		8/8/77	5/26/78
B10	Develop 02 Year Program		7/18/77	9/12/77
	1. Implement recruitment and candidate selection process:			
	a. Promote the D.A. Program (e.g. thru H.S. Counselors)	Assist. Prog. Dir.	1/10	2/15/77
	b. Recruit and select candidates	Admissions Committee	2/15	2/30/77
	c. Notify and orient selected students		5/1	6/15/77
	2. Implement 01 Year Program	Staff	8/8/77	2/26/78
	a. End of chairside auxiliary program (6 mos.)		8/8/77	2/21/78
	b. End of EFDA - level 1 (9 mos.)		8/8/77	5/26/78
	3. Develop 02 Year Curriculum Draft		7/18/77	9/12/77
	a. Identify content and teaching strategies for EFDA - level II (18 mos.)			
	b. Establish instructional objectives			
	c. Select teaching strategies			
	d. Prepare course outlines and schedules			
	4. Identify resources to be used			
	a. Materials			
	b. Time			

PROJECT PHASES	TASKS/PHASE	RESOURCES UTILIZED (PERS. &/OR FACILITIES)	DATES	
			START	COMPLETION
	c. Instruments			
	d. Personnel			
	5. Identify evaluation criteria and instruments			
	6. Adm. assessment of B7			
B11	Convene Advisory Group Meeting		11/1/77	1/27/78
	1. Prepare agenda and material output of B10 for adv. group	Assist. Dir.	11/1/77	11/16/77
	2. Send invitation for meeting	Assist. Dir.	11/10/77	11/10/77
	3. Adv. group meeting	Staff	1/25/77	1/27/78
B12	Finalize the 02 Year Curriculum		2/1/78	6/15/78
	1. Incorporate Adv. groups acceptable suggestion to 02 year curriculum	Staff	2/1/78	2/2/78
	2. Commit teaching facilities	Proj. Dir.	5/15/77	1/6/78
	3. Submit the finalized 02 year curriculum to P.O. for approval	" "		1/6/78
	4. Adm. assessment of phase B12	" "	10/13/77	6/1/78
	5. Receive P.O. approval on B12	" "	6/1/78	6/15/78
B13				
	1. Implement the 02 Year Program		8/10/78	5/26/78
	a. Implement recruitment and candidates selection process (promote D.A. Program)	Staff and Admissions Committee	1/12/78	2/2/78
	b. Recruit and select candidates	"	2/7/78	4/20/78
	c. Notify and orient students		5/1/78	6/15/78

PROJECT PHASES	TASKS/PHASE	RESOURCES UTILIZED (PERS. &/OR FACILITIES)	DATES	
			START	COMPLETION
	d. Implement 02 Year Program	Staff	8/10/78	5/26/79
	2. Prepare and submit document on 01 year assessment program	Proj. Director	9/25/79	10/20/79
	3. Initiate training of another 01 Year		8/10/78	5/26/79
	a. Implement recruitment and candidate selection process		1/12/78	2/2/78
	b. Recruit and select candidates		2/2/78	4/30/78
B13	c. Implement 01 year program		8/10/78	5/26/79
	1) end of chairside auxiliary program (6 mos.)		8/10/78	2/27/79
	2) end of EFDA level 1 (9 mos.)		3/2/79	5/26/79
B14	Convene Advisory Group Meeting		11/1/78	1/28/79
	1. Prepare agenda and a brief on the progress of the 2 years program		11/1/78	11/2/78
	2. Send invitation for meeting	Assist. Director	11/29/78	
	3. Adv. group meeting	Staff	1/25/79	1/26/79
B15	Prepare and Submit Document 01-02 Year	Project Director	5/6/79	9/23/79
	1. Prepare document			
	a. Analysis and interpretation of assessment results	Staff		
	b. recommendations for changes			
	2. Submit document	Project Director		9/23/79

PROJECT PHASES	TASKS/PHASE	RESOURCES UTILIZED (PERS. &/OR FACILITIES)	DATES	
			START	COMPLETION
B16	Prepare and Submit Draft Final Report and Executive Summary Report 1. Include overall accomplishment - 2 year project 2. Make recommendations for use in P.R. and U.S.A. 3. State major problems encountered and how solved		9/23/79	10/23/79
B17	Convene Advisory Group Meeting	Deleted		
B18	Submit Final Report	Project Director		2/22/80
	Submit Executive Summary	Project Director		2/22/80
*	Visit to A.D.A. headquarters for curriculum assessment	Assistant Project Director Program Staff A.D.A. Staff	8/22/78	8/27/78
	First Visit to A.D.A. headquarters for accreditation purposes	Project Director Program Director	2/7/79	2/12/79
	Second visit to A.D.A. headquarters for accreditation purposes	Project Director Program Director	5/1/79	5/4/79

*Additional activities

CONCEPTUAL SCHEME OF THE PUERTO RICO EXPERIMENTAL MODEL DENTAL AUXILIARY TRAINING PROGRAM

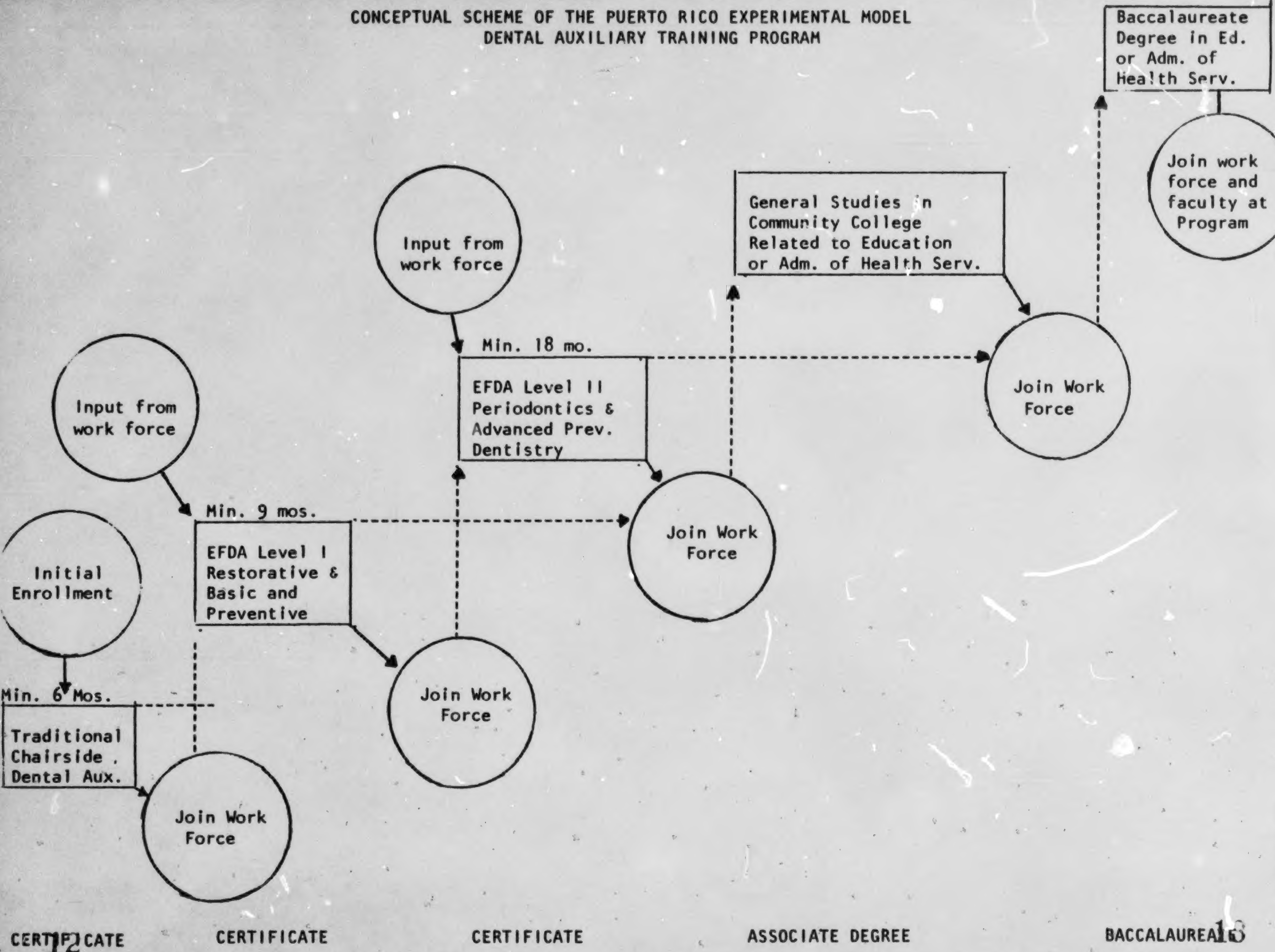
Baccalaureate Degree in Ed. or Adm. of Health Serv.
Join work force and faculty at Program
General Studies in Community College Related to Education or Adm. of Health Serv.
Input from work force
Min. 18 mo.
EFDA Level II Periodontics & Advanced Prev. Dentistry
Join Work Force
Input from work force
Min. 9 mos.
EFDA Level I Restorative & Basic and Preventive
Join Work Force
Initial Enrollment
Min. 6 Mos.
Traditional Chairside Dental Aux.
Join Work Force
Join Work Force
CERTIFICATE
CERTIFICATE
CERTIFICATE
ASSOCIATE DEGREE
BACCALAUREATE

Exhibit C

CONTENT DISPLAY

LEVEL I - TRACK A AND B

1ST TRIMESTER

Microbiology/ Oral Path I

- Introduction to General Microbiology
- General prin. of disease
- Inflammation & Repair
- Normal & abnormal tissue signs
- Oral Lesions and Microrganisms

Macroscopic Dental Anatomy

- Basic Oral Struc.
- Incisors
- Cuspids
- Maxillary Premolars
- Mand. Premolars
- Maxillary Molars
- Mand. Mol.
- Primary Dentition Part I
- Changing Dentition
- Angle's Class

Radiography

- Basic Prin. of Radia.
- Radia Safety
- Radio Equip. and Func.
- Radio Film & Diag. Series
- Proc. Radio Film
- Radio Anat. Land.
- Pt. Management In Radiographic Procedures
- Expo. Caries Detec. Radio.
- Expos. Periap. Using Bisect Tec.
- Expos. Periap. Using Parall. Tech.
- Acess Radio Series

Prevention of Dental Disease

- Personal Control of Dental Disease

Chairside Asst/Team Concepts

- Goal orientation
- Work Simplification
- Oper. & Main.
- Steril. & Asepsis
- Positioning
- 4-handed dentistry
- Patient Rapport Ethics
- Med/Dent. Histories Leg Asp. Rec. Keeping
- Recording Oral Inspection
- Recording Chartings X-Rays & Clin.
- Intro. to Emerg. Dent. Proc.

Dental Materials Specialties

- Goal orientation
- Struc. & Prop.
- Impression Materials
- Cements
- Operative Dentistry ex. & sh.
- Crown & Bridge ex. & Sh.
- Prosthodontics ex. & sharp.
- Appliances & Restorations
- Periodontics Examine & Sharpen
- Endodontics ex. & sharpen
- Oral Surgery ex. & sharpen
- Pedodontics ex. & Sharpen
- Orthodontics ex. & Sharpen

Boxes represent instructional modules, lectures or seminars (instructional units)

Exhibit D

LEVEL I TRACK B

2ND TRIMESTER

Exp. Func. in Restorative
- Temp. Restoration
- Remove excess cement
- Rub Dams
- Matrices, varnishes and place, carve, finish amalgams
- Matrices, varnishes, and place, carve, finish silicates and composites
- Suture Removal

Clinic Rotation II
- Clinic Rotation

Anatomy and Physiology
- Membrane Transfer
- Bones
- Muscles
- Nervous System
- Cardiovascular System
- Respiratory System
- Digestive System
- Excretory System
- Endocrine System

Nutrition
- Origin & Def. of Nutri. Term.
- Carbohydrate Nutrition
- Protein Nutrition
- Lipid Nutrition
- Vitamin Nutrition
- Other Macro & Micro Min.
- Physio. of Nutri.
- Form & Mod. of Food Hab.
- Role of Carbo. Ini. of Caries
- Prot. & Phos. Nutri. in O.Hlth. & Dis.

Prevention of Dental Disease
- Fluoride
- Hard & Soft Deposits and Stains
- Prevention of Periodontal Disease
- Prevention of Dental Caries
- Oral Physiotherapy

Dental office mgmt/Ethics Juris.
- Dental Office Management
- Appointment Control
- Finances
- Receive payment for dental serv
- Inventory Control
- Patient's Perspect
- Dial. of Com. in Hlth. care del.
- Al. Hlth. Prof. Rel with Others
- Dial. of Com. in Intra-of. Relation.
- Ethics
- Dental Jurisprudence
- Pt. Relationship and Respon.
- Liab. in Dent.
- Malpractice
- Technical Assault
- Breach of Contract
- Dental Prac Act as a Legal Cont

Boxes represent instructional modules, lectures or seminars (instructional units)

LEVEL I - TRACK B

3RD TRIMESTER

Basic Scs. Head & Neck Anatomy	Landmarks of the Head and Neck Nerves of the Head & Neck Muscles of the Head & Neck Glands, Other Oral Organs and Blood Supply Temp. Mand. Joint Align. and Artic. Self-Protect. Features Human Dent. in Biog. Perspec.
Oral Embry. and Hist.	Facial Development Early Tooth Development Tooth Eruption Enamel Dentin Cementum Pulp Periodontal Ligament Alveolar Process Salivary Glands Masticatory Mucosa Lining Mucosa Spec. Mucosa Tonsils and Sinuses
Oral Pathology	Neopla. and Dis. of Gro. Develop. Disturb. Part I Develop. Disturb. Part II Oral Phys. & Chem. Injuries Odontogenic Cysts & Tumors Oral Epithelial Tumors Oral Mesen. Tumors & Sal. Gl. Les.
Oral Hygiene	Explorers, Probe, Mirror Sickles, Hoe, Chisel Ultrasonic Scaling Polishing Applic. of Fluorides Sealants
Clinic Rotation III	Clinic Rotations
Clinic Exp. Func.	Clinic: Expanded Functions in Restorative

Boxes represent instructional modules.

Exhibit E

COURSES DISTRIBUTION AND SCOPE OF TRAINING PROGRAM

← 3 mos. →

Microbiology/Oral Path I
Dental Anatomy
Radiology
Chairside Asst./Dental Materials/
Dental Procedures
Psychology of Human Interaction
Preventive Dentistry I
Human Biology

← 3 mos. →

Preventive Dentistry II
Dental Office Management/
Ethics/Jurisprudence
Clinic Rotation IA & IB
Seminar I
*Expanded Functions in Restorative
*Expanded Functions in Preventive

Level I Track A (Traditional Chairside)
Level I Dental Auxiliary

← 3 mos. →

Head and Neck Anatomy
Oral Embryology & Histology
Oral Pathology II
**Clinical Rotation II
**Expanded Functions Clinic:
Restorative
**Expanded Functions Clinic:
Preventive
Seminar II

Level I - Track B EFDA in
Basic Preventive Dentistry
and Restorative

SUMMER

Periodontics
Advanced Preventive
Dentistry

← 3 mos. →

Sociology
Dental Health Education
Anatomy & Physiology
Pharmacology
General Organic and
Inorganic Chemistry
Clinic I

← 3 mos. →

Special Needs
Biochemistry & Nutrition
Dental Public Health &
Critique of Dental
Literature
Seminar III
Clinic II

← 3 mos. →

Seminar IV
Clinic III

Level II - Track A Dental Auxiliary
EFDA in Advanced Preventive Dentistry
and Periodontics

// (A) - Terminal, Chairside Dental Auxiliary (Certificate)
// (B) - Terminal, EFDA (Restorative) - (Certificate)
// (C) - Terminal, EFDA (Prev. & Perio.) - (Certificate)

*Track B only
**These clinics same for total
240 hours one student operator -
one student assistant

LEVEL I - TRACK A

TRADITIONAL CHAIRSIDE AUXILIARY - 6 MONTHS

First Trimester

COURSE NO.	COURSE TITLE	LECTURE	LABORATORY	CLINIC	CREDIT
PAXD 006	Microbiology/Oral Pathology I	24	-	-	2
PAXD 004	Dental Anatomy	24	-	-	2
PAXD 013	Radiology	24	48		4
PAXD 001	Chairside Assisting/Dental Materials/Dental Procedures	72	144	-	12
PAXD 015	Psychology of Human Interaction	24	-	-	2
PAXD 026	Preventive Dentistry I	-	6	-	N.C.
PAXD 031	Human Biology	12	-	-	1
	TOTAL	180	198	-	23

Second Trimester

COURSE NO.	COURSE TITLE	LECTURE	LABORATORY	CLINIC	CREDIT
PAXD 027	Preventive Dentistry II	36	-	-	3
PAXD 003	Dental Office Management/Ethics and Jurisprudence	24	-	-	2
PAXD 020	Clinical Rotation 1-A	-	-	334	9
PAXD 017	Seminar I	12	-	-	1
	TOTAL	72	-	334	15
	GRAND TOTAL	252	198	334	38
	SIX MONTHS TOTAL HOURS	784			

LEVEL I - TRACK A

TRADITIONAL CHAIRSIDE DENTAL AUXILIARY - 6 MONTHS

COURSE DESCRIPTIONS

CREDITS

Microbiology and Oral Pathology I 2

Basic introductory course in Microbiology and Oral Pathology. Emphasis will be placed upon microorganism as they relate to sterilization procedures, disease transmission, oral lesions, and diseases.

Dental Anatomy 2

This course is designed to develop in the student a comprehensive knowledge about tooth anatomy. Form of the teeth in relation to their functional alignment in the dental arch, both permanent and deciduous dentition are included.

Radiology 4

Course will introduce students to the principles and procedures necessary for exposing, processing, mounting, interpreting anatomical radiographical landmarks of the oral cavity. Emphasis will be placed on the development of technical accuracy and professional judgment.in a laboratory setting.

Chairside Assisting/Dental Materials/Dental Procedures 12

This course consists of classroom and laboratory experiences to capacitate the dental auxiliary in modern chairside assisting, chairside support procedures, dental materials and dental procedures utilized in the various areas of dental practice. Emphasis will be placed on laboratory practice of chairside assisting in dental procedures and on the biological considerations, effects of cooling agents and common reason for failure of each dental material.

Psychology of Human Interaction 2

This course has been tailor designed for a curriculum in Dental Assisting. It centers around the development of the individual as a person and the dynamics of his behavior. Though not always explicitly stated, the didactic contents of every unit, will be articulated with the needs, the servides and the human interaction in a dental office. This articulation will be very significant and come out naturally in all units except perhaps, units I and II which are of introductory nature.

LEVEL I - TRACK B

EFDA IN BASIC PREVENTIVE AND RESTORATIVE

First Trimester

COURSE NO.	COURSE TITLE	LECTURE	LABORATORY	CLINIC	CREDIT
PAXD 006	Microbiology/Oral Pathology I	24	-	-	2
PAXD 004	Dental Anatomy	24	-	-	2
PAXD 013	Radiology	24	48	-	4
PAXD 001	Chairside Assisting/Dental Materials/ Dental Procedures	72	144	-	12
PAXD 015	Psychology of Human Interaction	24	-	-	2
PAXD 026	Preventive Dentistry I	-	6		N.C.
PAXD 031	Human Biology	12	-	-	1
	TOTAL	180	198	-	23

Second Trimester

COURSE NO.	COURSE TITLE	LECTURE	LABORATORY	CLINIC	CREDIT
PAXD 027	Preventive Dentistry II	36	-	-	3
PAXD 003	Dental Office Management/Ethics and Jurisprudence	24	-	-	2
PAXD 017	Seminar I	12	-	-	1
PAXD 029	Expanded Functions in Restorative	24	108	-	5
PAXD 023	Expanded Functions in Preventive Procedures	12	72	-	3
PAXD 047	Clinical Rotation 1-B	-	-	210	6
	TOTAL	108	168	210	20

Third Trimester

COURSE NO.	COURSE TITLE	LECTURE	LABORATORY	CLINIC	CREDIT
PAXD 011	Head and Neck Anatomy	12	-	-	1
PAXD 009	Oral Embryology and Histology	24	-	-	2
PAXD 007	Oral Pathology II	24	-	-	2
PAXD 021	**Clinical Rotation II	-	-	120	3
PAXD 030	**Expanded Functions Clinic: Restorative	-	-	120	3
PAXD 024	Expanded Functions Clinic: Preventive	-	-	72	2
PAXD 018	Seminar II	12	-	-	1
	TOTAL	72	-	312	14
	GRAND TOTAL	360	366	522	57
	NINE MONTHS TOTAL HOURS	1,248			

*Course in progress. Grade will be given at the end of third trimester.

**These clinics are same clinics for total of 240 hours - one student is operator; other is assistant.

LEVEL I - TRACK B

EFDA IN BASIC PREVENTIVE AND RESTORATIVE DENTISTRY

COURSE DESCRIPTIONS CREDITS

(All courses described in Track A - Level I, plus the following additional courses:)

Expanded Functions in Restorative 5

This course introduces the dental auxiliary student to the operational experiences necessary to develop the basic skills in the most common restorative operative procedures, in order to develop proficiency in this field. Laboratory and clinical practice will be included. Four handed dentistry concepts will be emphasized.

Expanded Functions in Preventive Procedures 3

A general review of the operational experiences necessary to develop the basic skills in the most preventive dentistry procedures in order to develop proficiency in this field. Clinical experience is provided.

Head and Neck Anatomy 1

Students will be introduced to a general study of the anatomy of the head and neck, with special emphasis of the oral cavity and anatomical and functional aspects of the head and neck structures as related to dentistry and to the dental auxiliaries work.

Oral Embryology and Histology 2

An introductory study of the primary oral tissues. Emphasis is placed on the study of the microscopic anatomy of the tissues of the mouth and the embryonic development of the face and the oral cavity.

Oral Pathology II 2

Advanced course in Oral Pathology for the dental auxiliaries. Emphasis is placed on common developmental disturbances of the face and teeth, and oral manifestations of systemic disorders.

COURSE DESCRIPTIONS — CREDITS

Clinical Rotation II — 3

A general exposition to programmed progressive experiences in the execution of chairside assisting in the most common restorative operative procedures in order to develop skills and proficiency in this field, utilizing four handed dentistry concepts.

Expanded Functions in Restorative Dentistry Clinic I — 3

A general exposition to programmed progressive experiences in the execution of the most common restorative operative procedures in order to develop skills and proficiency in this field, utilizing four handed dentistry concepts.

Expanded Functions in Preventive Dentistry Clinic — 2

A general exposition to programmed progressive experiences in the execution of basic preventive procedures in order to develop skills and proficiency in this field.

Seminar II — 1

Time will be devoted to the discussion of any problem which may arise during the clinical experiences in expanded functions in restorative,and preventive. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of each student.

LEVEL II

SUMMER

COURSE NO.	COURSE TITLE	LECTURE	CLINIC	LABORATORY	CREDIT
PAXD 045	Periodontics	36	-	-	3
PAXD 044	Advanced Preventive Dentistry	24	-	72	5
		60	-	72	8

FIRST TRIMESTER

COURSE NO.	COURSE TITLE	LECTURE	CLINIC	LABORATORY	CREDIT
PAXD 046	Sociology	48	-	-	4
PAXD 043	Dental Health Education	48	-	-	4
PAXD 042	Anatomy/Physiology	36	-	-	3
PAXD 041	Pharmacology	36-	-	-	2
PAXD 040	General Organic and Inorganic Chemistry	36	-	-	3
PAXD 032	Clinic I	-	132	-	4
		204	132		20

SECOND TRIMESTER

COURSE NO.	COURSE TITLE	LECTURE	CLINIC	LABORATORY	CREDIT
PAXD 039	Special Need Patients	24	-	-	2
PAXD 033	Biochemistry and Nutrition	36	-	-	3
PAXD 038	Dental Public Health and Critique of Dental Literature	48	-	-	4
PAXD 034	Seminar III	12	-	-	1
PAXD 035	Clinic II	-	252	-	7
		120	252	-	17

THIRD TRIMESTER

COURSE NO.	COURSE TITLE	LECTURE	CLINIC	LABORATORY	CREDIT
PAXD 036	Seminar IV	12	-	-	1
PAXD 037	Clinic III	-	324	-	9
		12	324	-	10
	GRAND TOTAL	396	708	72	55

LEVEL II

COURSE DESCRIPTIONS

CREDITS

First Trimester

Periodontics 3

Didactic course intended to provide dental auxiliary student knowledge about normal periodontium, principles of periodontology and the etiology and classification of periodontal disease. The emergency and most common surgical procedures in the treatment of periodontal disease are also discussed. Special emphasis is given to preventive measures within the scope and responsibility of the dental auxiliary.

Advanced Preventive Dentistry 5

Course is designed to build upon the concepts and principles that the dental auxiliary has been exposed to, previously.

It includes experiences which will expand knowledge and procedures applicable to performing primary and secondary oral health services.

Sociology 4

This course is intended to provide dental auxiliary student with the basic sociological concepts with emphasis in the ecological approach of man. It provides the student an understanding of the interaction between the physical sociocultural environment with man's own values, beliefs, and mores.

Anatomy and Physiology 3

The course presents core concepts in anatomy and physiology and is intended to provide dental auxiliaries with the knowledge of normal human anatomy and how the body functions in normal situations for recognizing the manifestation of disease and anatomic anomalies.

Dental Health Education 4

This course is designed to develop in the dental auxiliary student the appropriate knowledge, skills, and attitudes needed for an effective participation in planning developing and evaluating oral health educational activities. It emphasizes concepts, practices, and trends in health education geared to foster the development of positive attitudes toward oral health. Practical experiences will be provided in developing educational activities in a community setting: classroom, and family clinic.

COURSE DESCRIPTIONS

CREDITS

Pharmacology 2

This course will introduce students to terminology, pharmacological principles of drug action and the therapeutic and toxicologic effects of clinically important drugs in medical and dental practice.

General Organic and Inorganic Chemistry 3

This course presents a balanced treatment of modern theoretical and descriptive basic chemistry. It consists of two units: general inorganic and organic chemistry. There are no laboratory periods as requirements.

Clinic I 4

Clinical course provides the opportunity for students to develop those skills necessary for performing an oral prophylaxis and patient education. Students will also apply correct techniques for gathering of diagnostic data pertinent to the delivery of oral hygiene services.

Second Trimester

Special Need Patients 2

This course is intended to provide the second year dental auxiliary student with basic knowledge and skills in the treatment of handicapped patients. It consists of didactic and practical experiences related to management and treatment of handicapped patients.

Emphasis will be placed in the development of professional judgment as it relates to the special needs of handicapped patients.

Biochemistry/Nutrition 3

This course provides the student with basic information regarding the biochemical aspects of nutrients, their metabolic roles, and interrelationship. The effects of each or excess on body tissues and nutrition requirements and distribution in foods is discussed. Techniques for the recording and evaluation of nutritional data and counseling of dental patients are amply discussed. The interrelationships of nutrients and dental health is thoroughly explained.

Dental Public Health and Critique of Dental Literature 4

This course is designed to provide the dental auxiliary student with knowledge skills and attitudes in the public health aspects of dental practice.

COURSE DESCRIPTIONS

CREDITS

Emphasis will be placed on principles and methods of general epidemiology and statistics and intervention strategies as applied to dental health education. Students skills will be developed in the use, evaluation, and interpretation of scientific literature.

Seminar III 1

Time will be devoted to discussion of any problem which may arise during the clinical experiences in the assigned clinics. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of dental students.

Clinic II 7

This clinical course provides the opportunity for students to develop those skills necessary for the treatment of patients with heavy calcified deposits and moderate to severe gingivitis. Students learn how to render preliminary treatment to patients with periodontitis and how to determine if patients require further periodontal treatment. Students also practice using ultrasonic scaling devices and charting oral conditions. In addition, students will also rotate through the Veteran's Administration Hospital dental clinic where they gain experiences working with hospitalized patients; they rotate through the clinic of patients with special needs where they plan and carry out preventive dentistry plans for these patients.

Third Trimester

Seminar IV 1

Time will be devoted to discussion of any problem which may arise during the clinical experiences in the assigned clinics. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of each student.

Clinic III 9

This clinical course further expands the student's experiences in working with patients with heavy calcified deposits and patients with periodontal involvements. Students continue to rotate through the Veteran's Administration Hospital dental clinic and through the clinic of patients with special needs. Emphasis will be placed on the development of professional judgment.

Exhibit F

Courses Outlines

FINALIZED 01 AND 02 YEAR CURRICULUM

UNIVERSIDAD DE PUERTO RICO, RECINTO DE CIENCIAS MEDICAS G.P.O. BOX [illegible] SAN JUAN, PUERTO RICO 00936 — TEL 767-[illegible]

COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

PUERTO RICO EXPERIMENTAL MODEL
DENTAL AUXILIARY TRAINING PROGRAM

FINALIZED 01 YEAR CURRICULUM

COURSE OUTLINES

VI

UNIVERSIDAD DE PUERTO RICO, RECINTO DE CIENCIAS MEDICAS
G.P.O. BOX 5067 SAN JUAN, PUERTO RICO 00936 — TEL. 767 9626

COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Dental Auxiliaries (Certificate Level)

I. Course Number: Title: Microbiology and Oral Pathology I

II. Credit Hours: 2 Pre-requisite: None

III. Clock Hours: 24

IV. Description:

Basic introductory course in Microbiology and Oral Pathology. Emphasis will be placed upon microorganism as they relate to sterilization procedures, disease transmission, oral lessions, and diseases.

V. Objectives

A. General

To become familiar with the basic terms in Microbiology, the way bacteria cause disease, contagious diseases, disease transmission; resistance to infection; body response to irritation; normal flora of the mouth; microorganism related to oral infections and diseases of the oral cavity.

B. Operational

1. After lecturing period and using the blackboard, drawing and slides presentation, the student should be able to define these terms as they apply to microbiology.

Students will define correctly 70% of these terms:

a. microbiology

   b. microorganism
   c. pathogen
   d. pure culture
   e. germ theory of disease
   f. Kock's postulates

2. After the lecturing period and using blackboard drawings to present the morphology of bacteria the student should be able to define, describe, and make drawings of these microorganism, and give examples of the diseases which these microorganisms produce with 70% accuracy.
   a. bacteria
   b. rickettsia
   c. virus
   d. fungi
   e. spores
   f. spirochetes
   g. protozoa

3. After the lecturing period the student should be able to explain the following processes as they relate to disease transmission Students will define correctly 70% of these terms.
   a. droplet infection
   b. indirect transmission

   d. self-infection method

   e. personal contact method

   f. carrier

4. After the lecturing period the student should be able to define the following terms as they apply to the methods by which microorganisms produce disease. The students will define correctly 70% of these terms:

   a. normal flora
   b. etiology agent
   c. virulence
   d. exotoxin
   e. endotoxin
   f. hemolysins
   g. leukocidins
   h. hyaluronidase
   i. hypersensitivity
   j. allergy

5. After the lecturing period the student should be able to describe these terms as they relate to the mechanisms of body defense towards disease. Students will define correctly 70% of these terms and concepts:

   a. bactericidal
   b. bacteriostatic

c. antigen

d. antibody

e. immunity

    1. natural

    2. acquired

        a. active

        b. passive

f. toxin

g. vaccine

h. anaphylaxis

i. phagocytosis

j. bacteremia or septicemia

k. focus of infection

6. At the end of the lecturing period the students are expected to describe these terms as they relate to the basic responses of the human body to trauma or irritation. Students will define correctly 70% of these concepts and terms:

    a. oral pathology

    b. the basic responses of the human body to trauma or irritation: Redness, swelling pain, heat, loss of function

    c. repair: granulation tissue, dense connective tissue and scar tissues.

    d. etiologic factors of pathology

7. At the end of the lecturing period and using slide presentation, the student should be able to recognize the normal conditions of oral structures which will help to identify the abnormal conditions.

   A. Size, shape, color, texture, and consistency of:

      1. lips
      2. tongue
         a. papillae
      3. bucal mucosa
      4. gingiva
      5. floor of mouth
      6. palate

8. At the end of the lecturing period the student will be able to name the most important microorganism in the normal flora of the mouth with 70% accuracy.

   1. streptococcus
   2. pneumococcus
   3. staphylococcus aureus
   4. lactobacillus
   5. sprirochetes
   6. haemophilus
   7. pseudomonas
   8. clostridium
   9. yeasts

9. At the end of the lecture and using slide presentation the student will describe and identify the most common lesions of the oral cavity with 70% of accuracy.
    1. leukoplakia
    2. stomatitis nicotina
    3. candidiasis
    4. fordyce's disease
    5. geographic tongue
    6. primary herpetic gingivostomatitis
    7. aphtous ulcer
    8. mucocele
    9. amalgam tatoos
    10. denture sore mouth
10. At the end of the lecture and using slide presentation, the student will recognize the most common types of development disturbances of the face with 70% accuracy:
    - A. Congenital malformations
        1. definition
            - a. congenital
            - b. hereditary
        2. etiology
        3. types
            - a. cleft palate·lip
            - b. macroglossia
            - c. fissured tongue
            - d. median Rhamboid glossitis

11. At the end of the lecture the student will have knowledge in using the P.D.R. as a reference to identify drugs related to medical history taking.
    - a. anti-inflammatory
    - b. anti-infection
    - c. analgesics
    - d. sedatives

VI Course Outline and Schedule of Instructions

A. Course Outline

1. Introduction to the course, basic concepts in the field of Microbiology.
2. Physical Characteristics and classification of micro-organisms.
3. Modes of transmissions of microorganisms.
4. Methods by which microorganisms produce diseases.
5. Mechanism of body defense
6. Body response to irritation
   - a. inflammation
     - 1. definition
     - 2. objectives of response
     - 3. nature of response
       - a. vascular reaction
       - b. etiological factors
       - c. hyperplasia
       - d. hypertrophy

7. Normal conditions of oral structures

8. Normal flora of the Oral Cavity; Microorganisms related to Oral Infections
9. Diseases of the Oral Cavity
10. Developmental disturbances of the face
11. Drugs related to medical history taking and use of the P.D.R.

B. Schedule of Instructional Periods

Periods	Hours	Topic
1 and 2	2	Introduction to the course; Basic concepts in the field of Microbiology
3 and 4	2	Physical Characteristics and Classification of Microorganisms Quiz
5 and 6	2	Mode of transmission of microorganism Quiz
7 and 8	2	Methods by which microorganisms produce disease Quiz
9	1	Partial Examination
10	1	Review of Examination Material
11,12 and 13	3	Mechanisms of body defense
14 and 15	2	Body response to irritation Quiz
16 and 17	2	Normal conditions of oral structures
18 and 19	2	Normal flora of the oral cavity; Microorganisms related to Oral Infections Quiz
20	1	Diseases of the Oral Cavity Quiz
21	1	Developmental disturbances of the face Quiz
22	1	Drug related to medical history taking and use of P.D.R.
23 and 24	2	Final Examination

VII Teaching Method

Lectures (the student will be required to attend the lecturing period and will be held responsible for the material in case of absence)

VIII Media

Visual aids (slide projection, video-casettes, video-tapes), class demonstrations.

IX Evaluation

Class discussion, seven quizzes (100 points total), one partial examination (100 points total), and one final examination (100 points).

Any student failing the desired objective will be given a remedial quiz at the end of the lecture the following day. The student will be tested on the same material and expected to obtain a 70% degree of efficiency.

X Textbook

Modern Dental Assisting, Torres & Ehrlich
1976, W.B. Saunders Co.

XI Reference

The Dental Assistant, Richardson
Second Edition, The Blakiston Division, McGraw Hill Book, Co.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

PROGRAM: Dental Auxiliaries (Certificate Level)

I. Course Number:
II. Title: Macroscopic Dental Anatomy I (Lecture)
III. Credit hours: I
IV. Clock hours: 24 – didactic
V. Description:

This course is designed to develop in the student a comprehensive knowledge about tooth anatomy. Form of teeth in relation to their functional alignment in the dental arch, both permanent and deciduous dentition are included.

VI. Objectives:

A. General

Acquire a comprehensive knowledge about tooth nomenclature and structural form of teeth in relation to their functional alignment in the dental arches.

B. Operational

At the end of the course the student will:

1. Identify components of the oral cavity: anatomical landmarks, mandible and maxila, soft and hard palate, uvula, floor of the mouth, rugae, maxilar and mandibular frenuns, salivary glands, mucobuccal folds, gingival tissue, lips and cheeks, mucogingival junction.

2. Identify and describe tooth structures, such as: enamel, dentin, pulp chamber, root canal, apical foramen, cementum, cemento-enamel junction, dentino-enamel junction, periodontal ligament, and its surroundings.
3. Point out the tooth surfaces and ridges of a maxillary first molar and a mandibular first molar.
4. Identify permanent maxillary and mandibular anteriors according to its anatomical characteristics.
5. Identify permanent maxillary and mandibular premolars according to its anatomical characteristics.
6. Identify permanent maxillary and mandibular molars according to its anatomical characteristics.
7. Recognize the relationship between the tooth form and its functions.
8. Discuss the characteristics of primary dentition.
9. Describe the differences and similarities between primary and permanent dentition in relation to: general shape, size, number, and color.
10. Discuss in a written exam the relationship between tooth morphology and how it affects surrounding tissues which support the tooth.
11. Compare on a written exam the root anatomy of a maxillary and mandibular posterior and anterior teeth in relation to number of roots, form and length.

C. Grading Criteria and Evaluation Methods

Quizzes after every lecture (15 points each), for a total of 90 points in quizzes. Class participation, 10 points. Quizzes plus class participation - 100 points.

Two written examinations - one at mid term and one at the end of the course (50 points per test) = 100 points. Minimum mastery level of 70% is required.

One practical exam (using natural teeth) to differentiate between specific teeth, maxillary and mandibular, right and left (100 points) minimum mastery level of 70% is required.

VII. Course Outline and Schedule of Instruction

A. Course Outline

1. Introduction and Course Objectives

2. Nomenclature

a. Oral cavity:

1) teeth

2) gingiva

3) tongue

4) vestibule

5) frenae

6) hard and soft palate, etc.

b. Primary dentition: (deciduous teeth)

1) dental formula - number

2) classification - incisors, canines, molars

c. Permanent teeth:

  1) dental formula

  2) classification - incisors, canines, premolars, molars

d. Crown and root:

  1) enamel

  2) cementum

  3) cemento enamel junction (cervical line)

  4) dentin

  5) pulp chamber

  6) pulp tissue

  7) pulp cavity

  8) alveolar bone

  9) periodontal membrane

e) Surfaces and ridges:

  1) labial surfaces } (facial surfaces)

  2) buccal surfaces } (facial surfaces)

  3) lingual surfaces

  4) occlusal surfaces

  5) incisal surfaces

  6) proximal surfaces

  7) mesial and distal surfaces

f) Other landmarks:

  1) cusp

  2) tubercle

  3) cingulum

- 4) ridge
- 5) marginal ridge
- 6) triangular ridge
- 7) transverse ridge
- 8) oblique ridge
- 9) fossa
- 10) sulcus
- 11) developmental groove
- 12) supplemental groove
- 13) pit
- 14) lobe

g) Division into thirds

- 1) coronal portion
- 2) root portion

h) Line angle, point angle:

- 1) definition
- 2) anterior teeth
- 3) posterior teeth

3. Development of the Teeth

- a) Life cycle
- b) Calcification
- c) Eruption
- d) Attrition
- e) Sequences of eruption and calcification of primary and permanent teeth

4. General relations between maxillary and mandibular teeth
   a) Permanent maxillary and mandibular teeth
      1) characteristics
      2) morphology and its applications
      3) function
      4) root anatomy
   b) Permanent maxillary premolars and mandibular premolars
      1) characteristics
      2) morphology and its applications
      3) function
      4) root anatomy
   c) Permanent posterior maxillary molars
      1) characteristics
      2) morphology and its application
      3) function
      4) root anatomy
   d) Permanent posterior mandibular molars
      1) characteristics
      2) morphology and its application
      3) function
      4) root anatomy
5. Primary Dentition; comparison between primary and permanent dentition
   a) Primary dentition:
      1) importance of the deciduous teeth
      2) general description of the deciduous teeth

b) Essential differences between deciduous and permanent teeth:

1) color

2) shape

3) roots

B. Schedule of Instructional Periods

Period	Hours	Topic
1	2	Course objectives; Nomenclature
2	2	Quiz Nomenclature
3	2	Quiz Development of the Teeth
4	2	Quiz Permanent Maxillary and Mandibular Anterior Teeth
5	2	Quiz Permanent Maxillary and Mandibular Premolars
6	2	Written examination
7	2	Permanent Posterior Maxillary Molars
8	2	Quiz Permanent Posterior Mandibular Molars
9	2	Quiz Primary Dentition; Comparison Between Primary and Permanent Dentition
10	2	Quiz Primary Dentition; Comparison Between Primary and Permanent Dentition
11	2	General Discussion and Review
12	2	Written examination

VIII. Teaching Methods

Lectures by instructor or previously prepared videotaped lectures; audiovisual aids.

IX. Media

Wheeler - Atlas of Tooth Form

Written lectures (videotaped)

Slide projections and stone tooth models

X. Textbook

Wheeler. A Textbook of Dental Anatomy and Physiology
Saunders Co. (Fifth Edition)

XI. References

Orban's Oral Histology and Embryology. Mosby Co. (Written class lectures)

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

PROGRAM

COURSE:

I. Title: Dental Radiology

II. Number: PAXD 013

III. Credit hours: 4

IV. Clock hours: 72

V. Methodology: Lecture/lab.

VI. Course Description:

Course will introduce students to the principles and procedures necessary for exposing, processing, mounting, and interpreting of intraoral radiographs. Emphasis will be placed on the development of technical accuracy and professional judgment.

VII. Objectives:

A. General

1. This course will enable the student to:
    1. utilize with care and accuracy the basic principles of radiology.
    2. utilize with care and accuracy the armamentarium the techniques necessary to expose and process X-rays.
    3. utilize and apply knowledge from related basic sciences to the interpretation of radiographs for preliminary diagnostic reading.

B. Operational

At the end of this course the student will:

1. apply the basic principles of radiology when exposing dental films.
2. protect her patient and herself by utilizing all safety measures available.
3. protect her patient and herself by utilizing correct positioning of patient film and X-ray machine when taking dental radiographs using the bisecting or paralleling technique.
4. identify on a written exam the components of an X-ray tube.
5. explain on a written exam the contra-indications for taking X-rays on a patient who is pregnant.
6. differentiate between "filtration" and "collimation" on a written exam.
7. explain the term "total filtration" on a written exam
8. discuss on a written exam the terms "kilo voltage" and "milliamperage" and how it affects the exposure of dental radiographs.
9. demonstrate darkroom procedures, utilizing care in the processing of dental films by maintaining correct water temperature and fixing time.
10. recognize the median palatine suture and the anterior palatine foramen on an upper anterior dental radiograph.
11. recognize the nasal septum and the nasal cavity on a dental radiograph.

12. identify on separate radiographs the maxillary sinus and the area in which it is normally located.
13. locate the maxillary tuberosity, the coronoid process and the hamular process on an upper posterior radiograph.
14. identify the mental foramen and the mandibular dental canal on given lower posterior radiographs.
15. state on a written exam the five most common errors which occur due to poor technique and how to correct them.
16. state on a written exam six radiographic errors which occur due to inadequate processing technique.

VII. Course outline and schedule of instructional periods

Period	Hours	Topics	Hours	Laboratory
1	2	Course description, outline and requirements Origin and Behavior of X-rays Physical Makeup of Matter Hazards of Radiation Primary and Secondary	4	Introduction to X-ray equipment
2	2	Quiz - A X-ray equipment: X-ray unit: Components, regulation devices X-ray production Collimation and Filtration	4	Demonstration of protective measures
3	2	Quiz A Radiographic Technique Bisecting Angle Paralleling technique	4	Technique demonstration on manikin
4	2	Quiz A Radiation: Dental Films: Intra-oral Extra-oral Protective measures	4	Darkroom demonstration technique Technique practice on manikin a. long cone b. short cone interchange groups
5	2	Quiz A Darkroom and Processing Procedures, Identification of Inadequacies in Radiographs	4	Practice Mounting and technique Practice a. long cone b. short cone

Period	Hours	Topics	Hours	Laboratory
6	2	Quiz A Anatomical Landmarks Mounting: full series, bite wings	4	Practice Mounting and technique Practice a. long cone b. short cone
7	2	Quiz - A Radiographic Interpretation: Normal Structures Abnormal Structures	4	Technique demonstration and practice on manikin and partner
8	2	Quiz A Occlusal survey: Intra-oral Extra-oral Bitewing, Lateral plates, Panorex, cephalometric	4	Darkroom Practice, Technique Practice on manikin
9	2	Quiz - A Factors influencing finished radiographs collimation and filtration Processing of radiographs Regulating devices	4	Technique Practice on manikin
10	2	Quiz - A Dealing with Radiology Patients	4	Technique Practice on manikin
11	2	Final (didactic)	4	Technique Practice on manikin
12	2	Final (practical)	4	Technique practice on manikin

IX. Teaching Methods:

1. Lectures
2. Demonstrations
3. Practice

X. Media:

1. Slides
2. Overhead projector
3. Laboratory manikin
4. Programmed instruction as assigned

XI. Evaluation:

75% minimum mastery level required in didactic and laboratory

10 - 15 minute quizzes
1 - 2 hour final exam

Percentage Grade on a Quiz (A)	Points
95 - 100%	10 pts.
85 - 94	9 pts.
75 - 84	8 pts.
00 - 74	--

Percentage Grade on Make-up Quiz (A)	Points
95 - 100%	8 pts.
85 - 94	7 pts.
75 - 84	6 pts.
00 - 74	--

Percentage Grade on Final	Points
93 - 100%	20 pts.
86 - 92	15 pts.
81 - 85	12 pts.
75 - 80	10 pts.
00 - 74	--

If 75% mastery is not shown on the make-up quiz, a verbal examination will be given with a maximum of 3 assigned points if 75% mastery is shown at that time.

Make-up opportunity for the final exam will be based on the individual deficiencies demonstrated in the exam and in no case shall a make-up exam be worth more than five points.

XII. Requirements: (laboratory)

One full series of x-rays with not more than four (4) individual retakes allowed in each serie. 100 points

Given one full series of x-rays incorrectly taken and submitted with a written report identifying the inadequacy in the film and how to correct it. 100 points

A practical exam consisting of 10 radiographs will include upper and lower molars, upper and lower bicuspids, upper and lower cuspids, upper and lower centrals, molar and bicuspid bite wings.

The finished radiographs will be evaluated according to the criteria on the evaluation sheet. Total 100 points.

Course grades will be assigned according to the following course point tallies:

Didactic	Weight	Laboratory	Weight
115 - 120 points	A 50%	95 - 100 points	A 50%
106 - 114 "	B	85 - 94 "	B
90 - 105 "	C	75 - 84	C

XIII. Text book:

Required: O'Brien, R. C. Dental Radiographic
Philadelphia, Saunders, 1972. P. 218

XIV. References

X-Rays in Dentistry, Eastman Kodak Co., 1972
Current Literature including journal articles

Each complete mouth radiographic survey will be scored according to the following criteria:

I. Each periapical film in the mount will receive +5 points if acceptable and correctly mounted.
   A. Deduct one (1) point for each of the following errors (each film)
      1. incorrect packet placement
      2. incorrect horizontal angulation (severe; -½ if slight)
      3. incorrect vertical angulation (severe; -½ if slight)
      4. missed apices
      5. Cone cut (-½ if minor)
   B. Deduct one-half (½) point for the following:
      1. incorrect density of film
      2. processing errors
      3. mounting error
   C. Deduct 5 points
      1. film backward
      2. totally unacceptable film

II. Interproximal surveys (bitewings) - each correct film will receive +5 points.
   A. Deduct one point for the following:
      1. unequal distribution of maxillary and mandibular teeth
      2. incorrect ant-post packet placement
   B. Deduct three points for:
      1. excessive horizontal overlap
      2. distortion of crowns of teeth (magnification and/or elongation)
   C. Deduct ½ point for items listed in B above.

III. Total points available for all films in the CMRS is 90; to this will be added from 0-10 points based on the overall esthetic appearance of the series.

Failure to use the lead apron on the patient will result in a grade of F for any full series.

STUDENT NAME. ______________ ______

PATIENT NAME ______________________

	Max.R. 2nd Mol	Max.R. Premol.	Max.R. Canine	Max. Cent	Max.L. Canine	Max.L. Premol	Max.L. 2nd Mol	Mand.R. 2nd Mol	Mand.R. Premol	Mand.R. Canine	Mand.R. Central	Mand.L. Canine	Mand.L. Premol.	Mand. 2nd mol.
Packet correctly placed														
Vertical angulation-elongation														
Vertical angulation-foreshortene														
Horizontal angulation-overlapped interproximals														
⅛" or more bone beyond each apex														
Acceptable density														
Cone cut														
Processing error														
Retake necessary														

	R. Molar Bitewing	R. Premolar Bitewing	L. Premolar Bitewing	L. Molar Bitewing
Interproximal spaces superimposed				
Equal distribution of maxillary and mandibular arches				
Crowns of teeth are magnified or distorted				
Retake necessary				
Packet correctly placed				

Mark each box with
Y for yes
N for no
? if you have doubts

eria to be used as a basis for the written or visual evaluation of film in your CMRS should include the following:

1. The radiograph should be an acceptable representation of the area being radiographed.
2. The image of the teeth should neither be foreshortened or elongated
3. The interproximal spaces should not be overlaped.
4. There should be at least ½ inch of alveolar bone visible beyond the apex of each tooth (if it has more than ½", it is also acceptable).
5. There should be a 1/8 - 1/4 inch margin between the crowns of the teeth and the edge of the film.
6. The density of the radiograph should be acceptable - neither too dark or too light.
7. There should be no cone cuts.
8. The embossed dot should be at the incisal or occlusal surface on periapical films.
9. In any CMRS, the apex of each tooth should be visible at least once and preferably twice.
10. The films should be free of processing and handling errors (scratches, finger prints, chemical stains, and other artifacts).

nterproximal surveys (bitewings)

. The interproximal spaces should not be superimposed from the distal of the mandibular cuspid to the distal of the 3rd molar.

2. There should be an equal distribution of both maxillary and mandibular teeth on the film.
3. The interproximal bone at the crest of the alveolar process should be visible without superimposition of the crowns of adjacent teeth.
4. The occlusal plane should be straight or slightly curved up in the distal.
5. The crowns of the teeth should not be magnified, enlarged, or distorted.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

PROGRAM: Dental Auxiliary Program

I. Course Title: Chairside Assisting/Dental Materials/Dental Procedures

II. Course Number: PAXD 001

III. Credit Hours: 11

IV. Clock Hours: 74 hrs. lecture 132 hrs. laboratory

V. Methodology: Lecture/Laboratory

VI. Course Description:

This course consists of classroom, laboratory, and clinical experiences to capacitate the dental auxiliary in modern chairside assisting, chairside support procedures, dental materials, and dental procedures utilized in the various areas of the dental practice. Emphasis will be placed on laboratory and clinical practice of chairside assisting in dental procedures and on the biological considerations, effects of cooling agents, and common reason for failure of each dental material.

VII. Objectives

A. General

Acquire knowledge of basic dental equipment and its maintenance. Develop skills relative to patient and dental auxiliary positioning, instrument transfer techniques, tray set-up preparation for specific dental treatment procedures, and the manipulation of the dental materials used in these procedures.

B. Operational

At the end of this course the student will:

1. apply the concepts of time and motion to the chairside procedures of four-handed dentistry.

2. apply principles of body mechanics which will reduce fatigue.
3. discuss in class and work in the clinic area the correct manipulation of basic dental office equipment and instruments.
4. describe on a written exam the proper maintenance of basic dental office equipment and instruments.
5. demonstrate ability to sharpen instruments for the conservation and preservation of the cutting edges.
6. relate the concept of prevention to the rationale for asepsis.
7. describe on a written exam the difference between the terms sterilization, disinfection, and sanitation.
8. identify on a written exam a method utilized for sterilization purposes, for disinfection purposes and for sanitation purposes.
9. demonstrate in laboratory, the use of the autoclave and driclave for sterilization purposes.
10. demonstrate in laboratory the use of sephrin chloride for desinfection purposes and alcohol wipes for sanitation purposes.
11. demonstrate in a role playing situation in the clinic, how to greet, escort, seat, and dismiss a dental patient.
12. position patient, operator, and self for maximum efficiency.
13. utilize principles of four-handed dentistry as a member of the dental health team.
14. demonstrate ability to establish patient rapport in a role-playing situation in the clinic area.
15. demonstrate ability to obtain a patient's medical and dental history utilizing the Questionnaire Method.
16. take the blood pressure, pulse, and respiration rate on a laboratory partner.

17. demonstrate ability to correctly chart dental conditions as designated by the instructor.
    a. utilizing continuous numbering system for primary and permanent dentition.
    b. utilizing Quadrant Numbering system for primary and permanent dentition.
    c. utilizing a list of charting symbols.
18. demonstrate knowledge of dental and medical emergency procedures that most commonly occur in the dental office.
19. locate and operate emergency equipment.
20. given a set of procedure sheets, containing a list of instruments and materials in the order of use, the student will:
    1) correctly set-up for clinical examination
    2) correctly set-up for administering anesthetic
    3) correctly set-up for rubber dam procedures.
    4) correctly set-up for amalgam procedures.
    5) correctly set-up for composite procedures
    6) correctly set-up for dental cementation procedures
    7) correctly set-up for pulpotomy procedures
    8) correctly set-up for Stainless Steel Crown procedures
    9) correctly set-up for Crown and Bridge procedures
    10) correctly set-up for Surgical procedures
    11) correctly set-up for Prophylaxis procedures
    12) correctly set-up for Periodontal procedures
    13) correctly set-up for Endodontic procedures
    14) correctly set-up for Orthodontic procedures
    15) correctly set-up for Prosthodontic procedures

21. enumerate the uses of the explorer and mirror.

22. recognize his/her role in each dental procedure or specialty

23. recognize the instruments used for each dental procedure.

24. identify the dental materials for specific dental procedures.

25. identify the physical properties of the materials to be used in the individual procedures.

26. describe the biological considerations associated with the dental materials and procedures discussed.

27. manipulate correctly the materials and instruments for each procedure.

28. select the proper clamps to be used in procedures that require the use of rubber dam.

29. pour and trim study casts.

30. fabricate custom trays for impressions.

31. identify the correct consistency and texture of the materials for the following procedures: cementation, temporary restoration, and thermal insulator (base).

C. Evaluation

1. Didactic

75% minimum mastery level required in didactic and laboratory

ten - 15 minute quizzes
one - 1 hour midterm
one - 2 hour final exam

Percentage grade on a Quiz A and Midterm	Points
95 - 100 %	10 pts.
85 - 94	9 pts.
75 - 84	8 pts.
00 - 74	--

Percentage grade on make up Quiz	Points
95 - 100 %	8 pts.
85 - 94	7 pts.
75 - 84	6 pts.
00 - 74	--

Percentage grade on final exam	Points
95 - 100 %	20 pts.
88 - 94	15 pts.
81 - 87	12 pts.
75 - 80	10 pts.
00 - 74	--

If 75% mastery is not shown on the make-up quiz, a verbal examination will be given with a maximum of 3 assigned points if 75% mastery is shown at that time.

Make-up opportunity for the final exam will be based on the individual deficiencies demonstrated in the exam and in no case shall a make-up exam be worth more than five points.

2. Laboratory Evaluation

5 practical quizzes (Quiz B)

Percentage grade on Quiz B	Points
48 - 50	10 pts.
43 - 47	9 pts.
37 - 42	8 pts.

Percentage grade on make-up Quiz B	Points
48 - 50	8 pts.
43 - 47	7 pts.
37 - 42	6 pts.

Percentage grade on Midterm, practical and final exam.	Points
39 - 40	40 pts.
36 - 38	30 pts.
32 - 35	24 pts.
30 - 31	20 pts.

Course grade will be assigned according to the following course points tallies:

Didactic	Weight	Laboratory	Weight
123-130 pts.	A 50%	123-130 pts.	A 50%
113-122 pts.	B	113-122 pts.	B
97-112 pts.	C	97-112 pts.	C

CHAIRSIDE ASSISTING/ DENTAL MATERIALS/ DENTAL PROCEDURES

Course Outline

Period	Topic	Laboratory-Clinic
1	-Goal Orientation, Course Overview, Clinic Manual -Dental Health Needs of the Nation, Body Mechanics, Principles of Work Simplification	Motion Picture on Work Simplification
2	-Introduction to Dental Equipment Operation and Maintenance of: 1. dental unit 2. dental unit light 3. dental chair and stools 4. operatory sinks 5. operatory cabinets	Clinic Dental unit operation and maintenance, operation of dental chair stools and other equipment
3	-Dental equipment, Rotary instruments operation and maintenance of: 1. gear driven handpiece 2. ultra speed air driven handpiece 3. standard contra-angle 4. prophy contra-angle	Operation and maintenance of 1. handpiece 2. contra-angle 3. engine belt
4	-Quiz A #1 -Sterilization 1. classification of terms a. sterilization b. desinfection c. sanitation d. contamination 2. methods a. moist heat b. dry heat c. boiling water d. chemical solution e. hot oil	Operation of: 1. autoclave 2. dry clave 3. zephyran chloride 4. bead sterilazer 5. alcohol wipes 6. ultrasonic
5		Preparation of Material for ultrasonic cleaner, scrubbing of instruments, packaging of instruments

Period	Topic	Laboratory - Clinic
6	-Principles of operator, assistants and patient's position. -Patient admission and dismissal	Clinic Dental stools operation Patient, Assistant and Operator's position.
7	-Basic instruments 1. mouth mirror 2. explorer 3. cotton pliers -Saliva Control 1. high volume evacuator 2. saliva ejector 3. cotton rolls 4. aplication of air 5. retraction: cheeks, tongue, etc.	Basic Instruments position Use of fulcrum, mirror and explorer Motion Picture on Saliva control Saliva control on lab. partner Laboratory
8	-Concepts of four handed dentistry 1. basic instrument grasp 2. clock concepts 3. instrument transfer	Laboratory: - instrument grasp and transfer Clinic: - clock concept and instrument transfer
9	-Oral Exam Procedures QUIZ A #2 -Medical and Dental History -Vital signs: Blood Pressure, pulse and respiration	Medical and Dental History taking Blood pressure, pulse and respiration
10	-A. Introduction to anesthesia 1. role of D.A. 2. use of topical anesthesia 3. use of local anesthesia 4. biological consideration B. Anesthesia Materials 1. carpules 2. hypodermic, etc.	Lab. - 1. Preparation of syringe for local anesthesia 2. Tray-Set-Up a. oral exam b. local anesthesia Clinic - Instrument Transfer
11	-Introduction to Restorative 1. definition/procedure 2. role of D.A. -Rubber Dam 1. uses 2. advantages-disadvantages 3. clamp selection 4. biologic consideration -Demonstration	
12	-Rubber Dam Tray Set-Up	Rubber Dam Tray Set-Up Clamp Selection
13		Clinic - Instrument Transfer

Period	Topic	Laboratory - Clinic
14	QUIZ #3 -Introduction to Cutting Instruments 1. hand cutting instruments a. sharpening -Cutting Instruments - Burs	
15		Recognize hand cutting inst. Practice on sharpening Cleaning and sterilization of burs Selection of burs
16		Clinic Instrument Transfer on Hand Cutting Instruments
17	-Evaluation Period MID-TERM	
18	-Introduction to Dental Cements, Cavity Liners, Bases 1. general functions 2. classification 3. types 4. advantages/disadvantages 5. manipulative considerations 6. effects of cooling agents 7 common reasons for failure of material	
19	-Dental Cements 1. instruments 2. tray set-up 3. mixing	
20	QUIZ B #1	Mixing of dental cements Cavity liner Bases Cementation
21		Dental Cements Tray Set-Up Instrument Transfer Clinic
22	-Introduction to Dental Amalgam 1. introduction 2. physical properties 3. uses 4. types 5. manipulative considerations 6. biological considerations 7. effects of cooling agents 8. common reasons for failure of material	

Period	Topic	Laboratory - Clinic
23	-Class I - II Amalgan QUIZ A #4 1. tray Set-Up 2. instruments 3. amalgam preparation	
24		Preparation of amalgam 1. mixing Preparation of matrix band
25		Clinic Instrument transfer on Class II amalgam
26	-Introduction to Composite Resins 1. introduction 2. physical properties 3. uses 4. manipulative considerations 5. biologic considerations 6. effects of cooling agents 7. common reasons for failure of material	
27		Instruments Tray Set-Up Manipulation of Composite
28	QUIZ A #5	Instrument Transfer on Composit Clinic
29	-DENTAL CEMENT MIXING EXAM	Practical Exam
30	-Charting Procedures Methods a. continous numbering system b. quadrant numbering symbols	
31	QUIZ B #2	Laboratory Practice on Charting Symbols
32	-Introduction to Pedodontic Restorative Procedures 1. introduction 2. basic procedures a. pulpotomy b. indirect and direct pulp caping c. tray set-up 3. stainless steel crown 4. polycarbonate 5. biological consideration 6. role of D.A.	
33	QUIZ A #6 -Pulpotomy Tray Set-up	Pulpotomy Instrument Transfer Clinic

Period	Topic	Laboratory - Clinic
34	-Stainless Steel Crown	Stainless Steel Instrument Transfer Clinic
35	-Introduction to Crown and Bridge Procedures 1. introduction and role of D.A. 2. nomenclature and terminology 3. instrumentation 4. procedure 5 biological consideration 6. effects of cooling agents	
36		Instruments Tray Set-Up Impression materials
37		Tray Set-Up Impression Materials (manipulation
38	QUIZ A #7	Crown and Bridge Instrument Transfer Clinic
39	-Prosthodontic Procedures 1. introduction 2. nomenclature and terminology 3. role of D.A. 4. instruments 5. tray set-up 6. materials 7. manipulation and properties 8. biologic considerations 9. effects of cooling agents 10 maintenance of laboratory	
40	QUIZ B #3	Alginate Impression taking on laboratory partner
41		Alginate Impression taking on laboratory partner
42		Pour study cast in stone Trim study casts
43	QUIZ A # 8	Pour study cast in stone Trim study casts
44		Fabricate custom tray on cast
45		Fabricate custom tray on cast

Period	Topic	Laboratory - Clinic
46	-Medical/Dental Emergencies Procedures 1. common dental emergencies 2. general first aid emergencies a. bleeding b. breathing c. shock 3. symptoms 4. first aid procedures	Oral Surgery Visit
47	-Introduction to Oral Surgery Procedures 1. introduction-role of D.A. 2. terminology 3. basic procedures 4. biological considerations 5. instruments 6. materials 7. tray set-up	
48	QUIZ A #9	Sutures Removal Tray set-uP Surgical Tray set-up
49		Forceps
50		Forceps
51		LABORATORY MID-TERM
52	-Introduction to Periodontal Procedures 1. introduction 2. nomenclature 3. role of D.A. 4. basic procedures 5. instruments 6. tray set-ups 7. materials 8. manipulation 9. biologic considerations 10. effects of cooling agents	
53		Periodontic Tray Set-Up
54	QUIZ B #4	Periodontic Instrument Transfer Clinic
55	-Endodontic Procedures 1. introduction 2. terminology 3. role of D.A. 4. basic procedures 5. basic diagnostic concepts	

Period	Topic	Laboratory - Clinic
Cont. #55	-Endodontic procedures (cont.) 6. instruments 7. tray set-up 8. materials 9. manipulation 10. biologic considerations 11. effects of cooling agents	
56		Endodontic Instrument Tray Set-up Clinic: Instrument Transfer
57	QUIZ A #10 -Orthodontic Procedures 1. introduction 2. nomenclature 3. role of D.A. 4. instrumentation 5. tray set-up a. examination b. banding c. cementation d. adjustment e. debanding 6. biologic considerations	
58	QUIZ B #5	Laboratory Practicum on Orthodon Pliers Clinic: Assisting in Orthodontic
59	-CLASS FINAL EXAM -LABORATORY FINAL EXAM	

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

PROGRAM: Dental Auxiliares (Certificate Level)

I. Course Number Title: Psychology of Human Interaction
Prerequisite: None

II. Credit hours: 2

III. Clock Hours: 24

IV. Description:

This course has been tailor designed for a curriculum in Dental Assisting. It centers around the development of the individual as a person and the dynamics of his behavior. Though not always explicitly stated, the didactic contents of every unit, will be articulated with the needs, the services and the human interaction in a dental office. This articulation will be very significant and come out naturally in all units except perhaps, units I and II which are of introductory nature.

V. Objectives

A. General

1. Make students aware of the interaction of the many forces that contribute to the uniqueness of every individual.
2. Help students gain a better understanding of the motives, both conscious and sub-conscious, that guide human behavior and thus improve their insights and techniques in dealing with people.
3. Help students develop strategies to deal effectively with individuals who in some way deviate from the accepted and expected norms.

B. Operational

During the course the student will:

1. Organize the elements that have contributed to the development of Psychology as the study of Human Behavior.
2. Evaluate the respective contribution of heredity environment, maturation and the cultural heritage in the formation of her own personality.
*3. Identify the primary and secondary needs of the organism and how they interact to bring about differences among individuals.
*4. Distinguish between conscious and unconscious motivations as determinants of behavior.
*5. Identify a defense mechanism presented in given situations.
6. Illustrate the three phases of the learning of motor skills by making macrame.
7. Distinguish between intelectual, social and motor skills learning and their relevance and implication for dental assisting.
*8. Create a situation, through role playing on how to cope with different crisis in a dental office.
9. Identify the different processes and elements that bring coherence in an occupational group.
*10. Develop a self profile as regards her assets and liabilities for the selected occupational goals.
11. Apply the acquired knowledge in writing term papers of the following theme: "In some ways every man is like all other men; in some ways every man is like some other men; in some ways every man is like no other man".

COURSE OUTLINE

- I. Brief History and Overview of Psychology as a Science and a Profession
  - A. Science of the study of Human Behavior
    - 1. Humanistic psychology
      - a. attention to human needs and the human condition
- II. How the Individual is Shaped
  - A. Heredity
    - 1. Setting the limits
  - B. Environment
    - 1. Providing the setting
      - a. the physical environment
      - b. the affective environment
  - C. Maturation
    - 1. Interaction of heredity and environment
  - D. The Cultural Heritage
- III. Why People Behave as They Do
  - A. Individual Differences
    - 1. Biological needs
    - 2. Emotional Needs
  - B. Ego Protection
    - 1. Unconscious motivation
      - a. defense mechanisms
- IV. How We Learn
  - A. Motivation
  - B. Intellectual Learning

- C. Social Learning
- D. The Learning of Motor Skills
    - 1. Cognitive Phase
    - 2. Organizing Phase
    - 3. Perfecting Phase
- E. Interaction of the Three Types of Learning
    - 1. Relevance and implications for dental assisting

V. How to Cope with Crisis

- A. Crisis at Different Stages of Growth
    - 1. Erikson's theory of personality
- B. Anxiety
    - 1. Separation anxiety in children
- C. Conflict and Frustration
- D. Temporary Feelings of Insecurity
- E. Feeling of Threat
- F. Illness and Physical Pain
- G. Feelings of Incapacity and Disability
- H. Tragedy

VI. The Individual and His Groups

- A. Characteristics of Groups
    - 1. Unstructured
    - 2. Structured

B. The Occupational Group

1. Membership and Processes

a. teamwork

b. interdependence

c. collaboration

d. communication

e. loyalties

f. ethics

g. satisfaction of social and emotional needs

VII. Performing Life's Tasks

A. Role Identification

1. The Self Concept

2. Educational and Occupational Goals

a. abilities

b. interests

c. levels of aspiration

d. opportunities

e. career choice

f. job satisfaction

Session	No. of Hours	Topic
1	2	Brief History and Overview of the Science of the Study of Human Behavior
2	2	How the Individual is Shaped
3	2	Why People Behave as They Do: Individual Differences and Needs

Session	No. of Hours	Topic
4	2	Why People Behave as They Do: Ego Protection
5	2	Why People Behave as They Do: Ego Protection
6	2	First Half - Midterm Exam Second Half: How We Learn: Intellectual and Social Learning
7	2	How We Learn: Learning of Motor Skills and Their Relevance in Dental Assisting
8	2	How to Cope with Crisis: Erikson's Theory of Personality
9	2	How to Cope with Crisis: Anxiety, Conflict, Frustration, et.al.
10	2	The Individual and His Groups
11	2	(Term Paper Due) Performing Life's Tasks
12	2	Final Examination

VIII. Evaluation

1. Midterm Examination - Weight	30%
2. Term Paper	40%
3. Final Examination	30%
	100 %

Term Paper:

Develop the following theme using as frame of reference class lectures, class discussion, your readings and your own experience:

"In some ways every man is like all other men; in some ways every man is like some other men; in some ways every man is like no other man".

"En ciertos aspectos cada hombre es como todos los hombres; en ciertos aspectos cada hombre es como algunos otros hombres; en ciertos aspectos cada hombre es como ningún otro hombre".

IX. Teaching Methods:

Lectures, group discussions (large and small), role playing, individual oral reports on a personal experience dealing with people.

X. Media:

Short movies, incomplete stories, cartoons, slides

XI. Textbook:

None

XII. References:

(pending)

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

. PROGRAM: Dental Auxiliaries (Certificate Level)

I. Course Number: PAXD 026 Title: Preventive Dentistry I

II. Credit Hours: N.C. (required)

III. Clock Hours: 6 (Lab.)

IV. Description:

The student will make at least three visits as a patient to the Preventive Dentistry clinic to receive:

1. evaluation of his/her oral condition
2. orientation about the factors that contribute to his/her oral condition
3. orientation about the necessary preventive measures that he needs to maintain its optimal oral health conditions.

V. Objectives

A. General

Guide the student to understand and accept the importance of the preventive measures in the maintenance of his optimal oral health conditions.

B. Operational

At the end of the course the student will be able to:

1. Recognize and accept his treatment needs and educational needs.

2. Accept his/her responsibility in the control of his oral condition
    a. recognize the progression of events leading to his/her oral condition
    b. identify his dental plaque
    c. recognize the adverse effects of plaque accumulation
    d. implement his own plaque control program
        1) utilize the disclosing tablet solution to detect the plaque deposits in his own teeth
        2) recognize the most appropriate toothbrush for his/her personal use
        3) recognize the toothbrushing method most suitable to his/her personal needs
        4) demonstrate his/her ability to remove plaque from all surfaces of the teeth in one quadrant with a brush and dental floss
3. Record a daily dietary analysis for a period of one week and modify his nutritional habits as needed

C. Evaluation method or Grading Criteria
1. the number of visits of the student to the preventive clinic
2. dental student evaluation
3. clinic supervisor evaluation
4. pass or fail

VI. Activities:

This activity will be indirectly experienced by student. She will benefit by being exposed to the learning experience of the dental student as a patient.

VII. Teaching Methods:

Personal experiences as patient in the Preventive Dentistry Clinic

(three - two hours visits)

VIII. Media

Audiovisual material phase microscope

Videocassettes

Refer to attached preventive dentistry manual

IX. Textbook: None

X. References: None

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

I. Title : Human Biology

II. Course Number : PAXD 031

III. Credit Hours : 1

IV. Clock Hours : 12

V. Methodology : Lecture, Conference, Demonstrations

VI. Description :

This course provides a comprehensive summary for dental auxiliary students of the basic principles in human anatomy and physiology. Emphasis will be placed on the oral anatomical structures as they relate to the practice of dentistry.

VII. Objectives :

A. General

At the completion of the course the student will develop integrated knowledge of anatomy and physiology and relate this knowledge to the delivery of dental services.

B. Operational

At the end of the course, the student will:

T 1. Define Anatomy and Physiology
T 2. Describe the different parts of the living cell
  E 1. Locate in a diagram the nucleus and nucleolus
  E 2. State the different parts of the cytoplasm
T 3. Describe the process of mitosis
  E 1. Discuss the difference between prophase and metaphase
  E 2. Differentiate between anaphase and telaphase
T 4. Discuss the difference between epithelial and connective tissue
  E 1. State the difference between epithelial tissue and connective tissue.

E 2. List the organs which are lined by the epithelial tissue

T 5. Explain the physiology of the integument

E 1. State the parts of the integumentary system

E 2. Discuss four functions of the integumentary system

T 6. Explain the anatomical terminology related to location and position of the body

E 1. Define: anterior, posterior, ventral, dorsal, superior, inferior, superficial, and deep concepts.

E 2. Locate the internal, external, proximal, distal, medial, and lateral positions in human body.

T 7. Discuss the general plan of the body structure

E 1. List the organs and structures contained in the head region

E 2. Locate and define the food getting and respiratory structures of the neck.

E 3. Summarize the functions of thyroid and parathyroid glands

E 4. Locate and define organs and structures of the trunk (thorax and abdomen)

E 5. List the structures of the extremities

T 8. Analyze the skeletal system

E 1. State and explain five functions of the skeletal system

E 2. List the components of the skeletal system

E 3. Identify in a diagram the following bones: skull, maxilla, mandible, clavicle, humerus, radius, ulna, carpals, metacarpals, phalanges, femur, patella, fibula, tibia, tarsals, metatarsals, phalanges

T 9. Explain the functions of the muscular system

- E 1. Discuss the principal functions of the voluntary muscles
- E 2. List the principal functions of the involuntary system

T 10. Differentiate between smooth muscle, striated muscle and cardiac muscle

- E 1. State the location of the smooth muscle tissues
- E 2. Relate the location to the type of action performed by the striated muscle tissues.
- E 3. Discuss the cardiac muscle tissue and its components

T 11. Describe the digestive system

- E 1. Describe the organs which comprise the digestive system
- E 2. State the two divisions of the digestive system
- E 3. List the parts of the alimentary canal
- E 4. Locate the accessory glands which aid in digestion
- E 5. State the functions of the accessory glands

T 12. Discuss the process of digestion

- E 1. Define digestion
- E 2. Classify foodstuffs according to sources of energy
- E 3. Explain the first two actions of the digestive track performed in the mouth and the pharynx.
- E 4. State the importance of masticatory process and its relation to digestion

T 13. Describe the circulatory system

- E 1. Mention and locate the components of the circulatory vessels
- E 2. State the four main types of blood vessels

E 3. Identify the structures of the heart and state their functions

E 4. Outline the pass of the blood in the circulatory system

T 14. Describe the structures and functions of the excretory system

E 1. Locate and describe the structures of the kidney

E 2. Summarize the chief functions of the kidney

E 3. State three inorganic and three nitrogenous constituents of urine

E 4. Mention the volume of urine formed in a 24 hour period

E 5. Identify the commonest type of kidney disease

T 15. Outline the structure of the respiratory organs

E 1. Locate and describe nasal cavities, pharynx, larynx, trachea, bronchi and bronchioles

E 2. Make a diagram of the lungs and identify each part

E 3. Describe the functions of a lung unit

E 4. Name and define the respiratory movements

E 5. Explain the use of cardiovascular resucitation technique in the dental practice

T 16. Explain the physiology of reproduction

E 1. Identify in a model, the male and female reproductive organ

E 2. Show the relationship of the male and female reproductive organs to neighboring parts

E 3. Summarize the process of spermatogenesis and oogenesis

E 4. Explain the process of conjugation of the egg and sperm cells

VIII. Course Outline

1. Introduction and Course Overview
2. The Living Cell
    - A. Parts
        1. nucleus
        2. nucleolus
        3. cytoplasm
    - B. Cell Division
3. Connective and Epithelial Tissue
4. The Integumentary System
    - A. Parts
    - B. Function
5. Nomenclature in gross anatomy
    - a. anterior
    - b. posterior
    - c. ventral
    - d. dorsal
    - e. superior
    - f. inferior
    - g. superficial
    - h. deep
    - i. internal
    - j. external
    - k. proximal
    - l. distal
    - m. medial
    - n. lateral

6. Regions of the Human Body
    a. Head
        1. Brain
        2. Sense organs
    b. Neck
        1. larynx
        2. trachea
        3. esophagus
        4. thyroid
        5. parathyroid glands
    c. Thorax
        1. heart
        2. large blood vessels
        3. lungs
        4. trachea
        5. bronchi
    d. Abdomen
        1. digestive organs
        2. urinary organs
        3. reproductive organs
        4. spleen
        5. adrenal glands
    e. Extremities
        1. arms
        2. forearms
        3. hands
        4. thighs

        5. legs
        6. feet
7. The Skeletal System
    a. Functions
    b. Components
        1. skull
        2. maxilla
        3. mandible
        4. clavicle
        5. humerus
        6. radius
        7. ulna
        8. carpals
        9. metacarpals
        10. phalanges
        11. femur
        12. patella
        13. fibula
        14. tibia
        15. tarsals
        16. metatarsals
        17. phalanges
8. The Musculatory System
    a. Functions
    b. Components
        1. Voluntary System
        2. Involuntary System

- c. smooth muscle tissue
- d. striated muscle tissue
- e. cardiac muscle tissue

9. The Digestive System
    - a. Component organs
    - b. Divisions
        1. alimentary canal
        2. accessory glands
    - c. digestion
        1. definition
        2. Foodstuffs
            - a. food proper
            - b. food accessories
                1. water
                2. inorganic salts
                3. vitamins

10. The Circulatory System
    - a. Components
    - b. Parts of the heart
    - c. Path of blood through the system

11. The Excretory System
    - a. Functions
    - b. Parts
        1. pelvis of kidney
        2. cortex
        3. medulla
        4. ureter

c. constituents of urine

1. inorganic

2. nitrogenous

d. volume of urine formed

12. The Respiratory System

a. Air Flow

b. Lungs

c. Respiratory Movements

d. Cardiovascular Resuscitation Technique

13. The Reproductive System

a. organs

b. spermatogenesis and oogenesis

c. fertilization

IX. Schedule of Instructional Periods

Period	Hour	Topic
1	1	Introduction, Course Objectives; The Living Cell; Connective and Epithelial Tissue
2	1	Quiz. Integumentary System; Nomenclature in gross Anatomy
3	1	Quiz, Regions of the Human Body
4	1	Quiz, The Skeletal System
5	1	Quiz, The Musculatory System
6	1	Quiz, The Digestive System
7	1	Quiz, The Circulatory System
8	1	Quiz, The Excretory System
9	1	Quiz, The Respiratory System
10	1	Quiz, The Reproductive System.
11	1	Review
12	1	Final Exam

X. Teaching Methods

Lecture, class discussions and written reports

XI. Media

Hand-outs, overhead projections

XII. Textbook: None

XIII. Evaluation

Nine quizzes 180 points, one written report 20 points and one final exam 100 points.

XIV. References

1. E.B. Steen, A. Montager, Anatomy and Physiology, Tenth Printing; Barnes and Noble College Outline Series.
2. C.H. Best, N.B. Taylor; The Living Body, Fourth Edition; Holt, Riverhart and Winston.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

I. Course Title: Preventive Dentistry II

II. Course Number: PAXD 027

III. Credit hours: 3

IV. Class hours: 36

V. Methodology: Lecture Demonstration

VI. Course Description:

This course is designed to introduce the dental auxiliary to the general scope of preventive dentistry. Emphasis will be placed on the preventive measures available nowadays in Dentistry. An expanded concept of prevention at different levels in the natural history of dental disease is presented.

VII. Objectives:

A. General

To impart knowledge of primary and secondary preventive measures related to dental disease.

B. Operational

At the end of this course the student will:

1. discuss the philosophy, rationale, and present day concepts of preventive dentistry.
2. define, on a written exam, the terms primary, secondary, and tertiary preventive measures.
3. apply the ecological concept as related to the prevention of oral diseases.

4. identify the level of prevention corresponding to the different stages of oral disease and indicate the different measures on each level.
5. discuss the role of plaque, and the factors in the initiation of periodontal disease.
6. translate nutrients into foods
7. discuss the Puerto Rican diet and how it can be improved
8. discuss in class, substitute foods, which can be suggested to a patient
9. relate the concept of prevention to the rationale for restriction of succrose containing nutrients in a caries susceptible patient.
10. describe on a written exam the steps in the progression of caries and the effect on pulpal and periapical tissue.
11. categorize, on a written exam, the preventive measures: fluoridation, topical fluorides, occlusal sealants, oral prophylaxis, and oral physiotherapy as primary or secondary.
12. outline on a written exam the objectives for plaque control.
13. describe on a written exam the cause and effects of soft deposits, hard deposits and dental stains on the teeth.
14. describe on a written exam the characteristics of a proper toothbrush.
15. discuss the effects of improper toothbrushing.
16. discuss in class the toothbrushing methods most commonly used.
17. discuss in class, the importance of tongue and occlusal brushing.
18. discuss in class the different oral physio-therapy aids available to the dental profession today.

VIII. Course Outline

Period	Topic
1	Prevention Concepts
2	Ecological Concept of Dental Caries and Periodontal Disease
3	Diseases of Pulp and Periapical Tissues
4	Exam Preventive measures
5	Nutrition as a Primary Preventive Procedure – The Nutrients
6	Nutrition as a Primary Preventive Procedure – Standards of Dietary Adequacy
7	Nutrition as a Primary Preventive Procedure The Cariogenicity of Foodstuff Caries Control Through Dietary Counseling
8	Plaque Control as a Primary Preventive Procedure
9	Plaque Control as a Primary Preventive Procedure
10	Fluoride as a Primary Preventive Procedure
11	Sealants as a Primary Preventive Procedure
12	Final Exam

IX. Schedule of Instruction

Period	Hours	Topic
1	3	Course Overview, Introduction to Concepts of Prevention: a. philosophy b. rationale c. present concept 1. Primary prevention 2. Secondary prevention 3. Tertiary prevention

Period	Hours	Topic
2		Quiz I Ecological Concepts of Dental Caries and Periodontal Disease a. etiology b. classification c. contributory factors
3		Quiz 2 Caries progression: a. pulpal inflammation b. pulpal necrosis Periapical Absess a. acute response b. chronic response
4		Mid term Examination
5		Quiz 3 Preventive Measures Nutrition as a Primary Preventive Procedure - The Nutrients
6		Quiz 4 Nutrition as a Primary Preventive Procedure - Standards of Dietary Adequacy a. definition Deficiencies in Puerto Rican Diet a. alternatives and substitutes
7		Quiz 4 Nutrition as a Primary Preventive Procedure The Cariogenicity of Foodstuff Caries Control Through Dietary Counseling Lab. practicum Dietary counselling on lab. partner.

Period	Hours	Topic	
8		Quiz 6 Plaque Control as a Primary Preventive Procedure Objectives Plaque (non-mineralized) a. characteristics b. formation c. composition d. removal e. relation to dental caries f. relation to periodontal disease Plaque (mineralized) a. characteristics b. formation c. composition d. removal Materia Alba a. characteristics b. formation c. composition d. removal	Lab. practicum modified plaque index on lab. partner.
9		Quiz 7 Plaque Control as a Primary Preventive Procedure Dental Stains Extrinsic: Clinical appearance etiology a. yellow stain b. green stain c. brown stain d. black line stain e. orange f. removal Intrinsic Stains a. clinical appearance b. etiology Toothbrushes and Toothbrushing Manual toothbrush a. characteristics	

Period	Hours	Topic
		Automatic toothbrushes
		a. advantages
		b. disadvantages
		Toothbrushing Methods
		a. roll technique
		b. bass method
		c. modified stillman
		Interdental Plaque Control
		a. floss
		b. waxed-unwaxed
		c. tape
		d. Perio aid
		e. yarn
		f. balsa wood wed
		1. indications
		2. techniques
		Dentifrices
		a. prophylactic
		b. therapeutic
		Mouthwashes
		a. purposes
		b. uses
		Role-Play - Tooth brush and flossing instructions to patient. Lab practice with partner
10		Quiz 8 Fluoride as a Primary Preventive Procedure
		Fluoride Action
		Fluoride and Tooth development
		a. water
		b. topical
		c. mouthwashes
		Fluoridation Effects and Benefits

Period	Hours	Topic
11		Quiz 9 Pit and Fissure Sealants as a Primary Preventive Procedure a. indications b. contraindications c. tooth preparation d. sealant application e. sealant polimerization
12		Final Exam

X. Teaching Methods:

Lectures, demonstration, group discussion, team-teaching approach.

XI. Media:

Class lectures, videotape, slides, overhead projections, tooth models, etc.

XII. Evaluation:

The student will perform to a 75% mastery level

Nine announced quizzes 10 points each

Mid term exam 100 points

Final exam 100 points

Class participation 10 points

XIII. Concurrent laboratory course for Track B - EFDA

Preventive Dentistry II lab.

XIV. Textbook: None

XV. References:

1. Written material prepared by instructors.
2. Katz, McDonald and Stookey. Preventive Dentistry in Action. D.C.P. Publishing, Upper Montclair, N.Y. 1976

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

COURSE:

I Title: Dental Office Management/Ethics and Jurisprudence
II Course Number
III Credit Hours: 2
IV Clock Hours: 24 Lecture (X)
V Description:

This course is designed to provide the student with a comprehensive knowledge of the adminstrative procedures included in patient management and the dental office in general. This course also presents basic ethical principles related to the dental auxiliary profession and is designed to familiarize the students with the legal framework of dentistry and the implications that may affect them as part of the dental health team.

VI Objectives:

A. General

To familiarize students with the effective performance of dental auxiliaries as members of a dental health team and their administrative, ethical and legal responsibilities in the dental practice.

B. Operational

At the end of this course the student will:

1. differentiate on a written exam, between a solo and a group practice.
2. discuss in class the different types of payment plan available to the dental practice.
3. discuss in class how dental office facilities ie, operatories, lab., office etc., can affect a dental practice.

4. demonstrate in a role playing situation the procedures for receiving and dismissing patients.
5. demonstrate in a role playing situation, the proper approach to be utilized when placing and receiving telephone calls in a dental office.
6. relate the importance of good inter-personal relations among team members to a successful dental practice.
7. state on a written exam, an effective method to minimize broken appointments.
8. structure in a simulated situation, an appointment schedule conducive to reducing operator and staff fatigue.
9. describe on a written exam 3 different methods of recall systems currently in use in dental practice.
10. state on a written exam, a method to maintain efficient supply control in a dental practice.
11. recognize the importance of ethical responsibilities to self profession and community.
12. discuss in class the ethical implications of communication skills both verbal and non verbal in the procedure of patient management.
13. differentiate on an exam, between ethical and legal responsibilities that pertain to dental auxiliaries.
14. differentiate on an exam, between liability, malpractice, technical assault and breach of contact, in the practice of dentistry

15. discuss in class the Dental Practice Act and how it relates to the dental auxiliary in Puerto Rico.
16. discuss in class the role of the certifying and licensing boards for dental auxiliaries.

VII. Course Outline and Schedule of Instructional Periods.

Period	Hours	Topic
1	1	Course Overview and Course Objectives (Goal Orientation)
2	1	Role of the Dental Auxiliary in Private Practice.
3	1	Quiz A Significant Events in the History of Dentistry.
4	1	Allied Health and Professional Relations Career Options: Public Health Private Practice Private Enterprise
5	1	Quiz A Interpersonal Relations: a. dentist-patient b. auxiliary-patient c. dental health team members.
6	1	Ethical Responsibilities of the Dental Auxiliary
7	1	Quiz A Ethical Responsibilities of the Dental Auxiliary
8	1	The Dental Office: Solo Practice Group Practice (student report) Facilities: operatory, waiting room, lab., dark room.

Period	Hours	Topic
		Quiz A
9 & 10	2	Appointment Control:
		Appointment book:
		types- advantages
		disadvantages
		buffer time
		Appointment card:
		types
	(Simulation)	Cancelled Appointment:
		call list
		Broken Appointments
		Recall System:
		types
		advantages-disadvantages
		Banking Procedures
11	1	Midterm
12	1	Dental Health Payment Plans:
		Triple S
		Blue Cross
		Medicaid
		Others
13 & 14	2	Quiz A
		General Office Communication
		Telephone Calls:
	(Role Play) Situation	incoming
		outgoing
		Incoming Mail
		sorting
15 & 16	2	Person to Person Office Communication
		receiving patients and visitors
	(Role Play Situation)	scheduling appointments
		collecting fees and issuing receipts
		dismissing patients.
17	1	Quiz A
		Supply Control:
		Methods
		Ordering
		Phone vs. mail

Period	Hours	Topic
18	1 (Student report)	Bookkeeping Systems P.B.P. Advantages-Disadvantages
19	1 (Student report)	Quiz A Filing Systems: alphabetical numerical cross-index
20 & 21	2	Quiz A Dental Jurisprudence Introduction to Legal Aspects Legislation in Puerto Rico
22 & 23	2	Malpractice Certification and Licensure Professional Associations
24	1	Final Exam / Evaluation

VIII. Teaching Methods:

Lectures
Oral Reports
Class discussions
Role Playing

IX. Media:

Chalkboard- handouts - slides

X. Evaluation: 80% minimum mastery level required.

7 quizzes of 15 minutes total worth 100 points
(6=15 pts. 1-10 pts.)

1 midterm	points
1 final	points

% grade Quiz A	Course Points
93 - 100%	15 - 10
85 - 92	14 - 9
80 - 84	13 - 8
79 or lower	-- --

% grade Quiz B	Course Points
93 - 100%	13 - 8
85 - 92	12 - 7
80 - 84	11 - 6
79% or lower	-- --

Percentage grade on Midterm.

Percentage grade on Final.

If student fails Quiz B can take an oral (Quiz C) for maximum 4 pts.

Total Course Points	Grade
123-130	A
113-122	B
97-112	C

XI. Prerequisite Courses:

All courses work previous to this trimester.

XII. Textbook:

Torres and Ehrlich, Modern Dental Assisting, Saunders, Philadelphia 1976

XIII. References:

Current dental literature (including journal articles)

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

COURSE:

I. Title: Clinical Rotation I-A

II. Number: ADHP 020

III. Credit Hours: 8

IV. Clock Hours: 300

V. Methodology: Clinical

VI. Description:

The dental assisting student is provided with the practical clinical experiences related to chairside assisting in the general main clinic, oral surgery clinic, and dental auxiliary utilization (DAUP) clinic. The student is also provided with the clinical experiences necessary for exposing and processing intra-oral radiograph. Emphasis will be placed on patient management in order to ease performance by better patient-operator relations.

VII. Objectives:

A. General

To develop the necessary skills for successful performance as a chairside assistant in the various types of dental clinics such as, DAUP, Orthodontics, Oral Surgery, Endodontics, Periodontics, Prosthodontics, Restorative, Pedodontics, and Radiology.

B. Operational

During the clinical experience the student will:

1. evacuate adequately the oral cavity during dental procedures by:

  - a. adequate grasping of evacuation tip
  - b. correct positioning of tip according to surface and quadrant
  - c. non-interference with dentist procedure
  - d. proper retraction
  - e. proper utilization of saliva ejector
  - f. constantly maintaining dry and clean area
  - g. proper gauze application

2. assist properly with rubber dam insertion and removal by
   - a. setting proper instrumentation.
     - 1) completeness
     - 2) sequence
   - b. correct instrument transfer
   - c. adequate clamp selection and transfer
   - d. correct use of floss interproximally
   - e. correct use of air to invaginate rubber dam
   - f. correct and prompt placement of saliva ejector
   - g. appropriate removal of rubber dam
3. maintain a clear field by correct use of
   - a. air and water syringe
   - b. proper cheek retraction
4. assist properly with the administration of local anesthetics by
   - a. preparing an adequate set up
   - b. proper placement of needle and syringe
   - c. proper instrument transfer
5. assist properly during the examination procedure by
   - a. proper charting of oral conditions as dictated
   - b. properly obtaining and recording of the medical, dental and personal history

   c. proper manipulation of armamentarium for obtaining vital signs and proper recording of them

6. assist properly in managing the patient by
   a. correctly positioning and draping of the patient in the chai
   b. proper manipulating of the dental unit
   c. being sensitive to patient's comfort
   d. being courteous and communicating effectively with patient.
7. utilize adequate asepsis procedures
   a. personal
   b. instruments
   c. area
8. transfer adequately the instruments by
   a. setting the proper instrumentation needed
   b. adequate patient, operator, and dental assistant position
   c. proper positioning of mobile cabinet
   d. correct instrument grasp
   e. proper deliver and receipt of instruments
   f. handling instruments in advance
   g. achieving smoothness in transfer of instrument
9. assist properly in restorative procedures by
   a. setting up the proper instrumentation as needed
   b. having equipment and material on hand
   c. correct manipulation of dental materials needed
   d. proper instrument transfer using four handed dentistry
   e. maintaining clean area

   Additional criteria for CL II Amalgam
   a. correctly place band in matrix retainer

10. assist properly in endodontics procedures by
    a. setting the proper instrumentation needed
    b. having needed equipment and material on hand
    c. correct manipulation of dental materials
    d. proper instrument transfer
    e. taking, exposing and mounting radiographs correctly

11. assist adequately in Prosthodontics by
    a. setting the proper instrumentation needed
    b. having needed equipment and materials on hand
    c. correct manipulation of dental materials
    d. adequate construction of bite rims
    e. adequate construction of individual trays for dentulous and edentulous cases
    f. pouring impressions adequately
    g. adequate trimming of the models
12. assist adequately in Periodontics by
    a. setting the proper instrumentation needed
    b. having needed equipment and materials on hand
    c. correct manipulation of dental materials
    d. proper instruments' transfer
    e. helping properly in the placing and removal of periodontal dressings
    f. helping properly in the placing and removal of sutures
13. assist adequately in Pedodontics by
    a. proper patient management
    b. setting the proper instrumentation needed
    c. having needed equipment and materials on hand
    d. correct manipulation of dental materials.

    e. teach tooth brush and flossing techniques for plaque remova
    f. proper instrument transfer
    g. adequately helping in the placement of stainless steel crowns.
    h. adequately helping in the different pulpal procedures

14. assist adequately in Oral Surgery by
    a. setting the proper instrumentation needed
    b. having needed equipment and materials on hand
    c. correct manipulation of dental materials
    d. proper instrument transfer
    e. helping properly in the placing and removal of sutures

15. assist adequately in Orthodontics by
    a. setting the proper instrumentation needed
    b. having needed equipment and materials on hand
    c. correct manipulation of dental materials
    d. adequate trimming of models

16. apply the basic principles of radiology when exposing dental film in the clinic.

17. protect her patient and herself when exposing dental film in the clinic by utilizing all safety measures available.

18. position patient, x-ray film and x-ray machine correctly for taking radiographs in the clinic using the bisecting and the paralleling techniques.

19. demonstrate darkroom procedures when developing radiographs by utilizing care in maintaining correct temperature and time.

20. demonstrate ability in clinic to deal with patients who tend to gag by utilizing methods available to decrease the gag reflex.
21. demonstrate ability in clinic to cope successfully with the child patient and the adult apprehensive patient.
22. evaluate the completed radiographs taken on a patient in clinic to determine the level of acceptability by applying criteria from radiograph evaluation forms.

VIII. Course Outline and Schedule of Instruction

(Refer to Clinical Schedule)

IX. Media:

Clinical facilities, participation of dental students, and patients.

X. Evaluation:

Each student will have experiences in each of the different clinics and specialties, requiring, achieving a minimal mastery level of 80%.

Students' evaluation of clinical performance will be performed daily using attached clinical evaluation form.

Each student will expose and process a total of 10 full mouth series consisting of the following:

2 pedodontic tray series
2 mixed dentition tray series
2 edentulous tray series
4 regular patient full series

The finished radiographic series will be evaluated according to the criteria specified in the evaluation form appended.

Students must attain a minimal mastery level of 75% on each full series with no more than 4 retakes allowed.

Hour allocation for assisting in the various specialty areas:

Clinic I	Hours
Orthodontic	-20
Oral Surgery	+40
Endodontic	18
Periodontics	+35
Prosthodontic	-15
Restorative	+70
Pedodontic (including DAU)	-30
	228

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DAILY EVALUATION SHEET
FOR CLINICAL ROTATION

Student's Name: ______________________ Function: ____________
Time In: ____________ Time Out: __________

Operations performed today: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P

Evaluative Criteria

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1	Total ____
A. Personal Appearance and Professional Conduct						
1. Uniform and personal neatness						
2. Manners, tact and verbal communication						
3. Alertness, initiative and awareness of responsibilities						
4. Attitude towards patient, supervisor and coworkers						
B. Evacuation of Oral Cavity						Total ____
1. Grasping of evacuation tip						
2. Positioning of tip						
3. Non-interference with dentist						
4. Proper retraction						
5. Utilization of saliva ejector						
6. Maintenance of area dry and clean						
7. Proper gauze application						
C. Rubber Dam Procedures						Total ____
1. Setting the instrumentation - completeness						
2. Setting the instrumentation - sequence						
3. Correct instrument transfer						
4. Clamp selection and transfer						
5. Assisting with Placement of rubber dam and frame						
6. Use of dental floss						
7. Use of air to invaginate dam						
8. Placement of saliva ejector						
9. Assisting in Removal of dam						
D. Maintenance of Clear Field						Total ____
1. Air syringe						
2. Water syringe						
3. Cheek retraction						
4. Tongue retraction						
5. Adequate suction						
6.						
E. Assistance with Local Anesthetics						Total ____
1. Adequate set up						
2. Proper insertion of needle and carpule in syringe						
3. Proper instrument transfer						
F. Assisting During Examination						Total ____
1. Charting oral conditions as directed						
2. Obtaining and recording medical, dental and personal history						
3. Manipulation of armamentarium						
4. Taking and recording vital signs						

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1	
G. Assisting in Managing the Patient						Total ____
1. Positioning and Draping						
2. Sensitivity to patient's comfort						
3. Communicating politely and effectively with patient						
H. Asepsis Procedures						Total ____
1. Personal						
2. Instruments						
3. Materials						
4. Equipment						
. Transfer of Instruments						Total ____
1. Setting proper instrumentation						
2. Adequate patient position						
3. Adequate dental assistant position						
4. Position of mobile cabinet						
5. Instrument grasp						
6. Delivery and receipt of instruments						
7. Handing instruments in advance						
8. Smoothness receiving instruments						
J. Assisting in Restorative Procedures						Total ____
1. Setting proper instrumentation						
2. Equipment and materials handy						
3. Manipulation of dental materials						
4. Instrument transfer – four handed dentistry						
5. Maintaining clean area						
6. Placement of band in matrix retainer (CL II Amalgam)						
7. Mastery of Procedures						
K. Assisting in Endodontics						Total ____
1. Setting proper instrumentation						
2. Equipment and materials handy						
3. Manipulation of dental materials						
4. Instrument transfer						
5. Mastery of Procedures						
L. Assisting in Prosthodontics						Total ____
1. Setting proper instrumentation						
2. Materials and equipment handy						
3. Manipulation of dental materials						
4. Mastery of Procedures						
M. Assisting in Periodontics						Total ____
1. Setting proper instrumentation						
2. Materials and equipment handy						
3. Manipulation of dental materials						
4. Instrument transfer						
5. Mastery of Procedures						

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1	
N. Assisting in Pedodontics						Total ______
1. Patient management						
2. Setting proper instrumentation						
3. Materials and equipment handy						
4. Manipulation of dental materials						
5. Instrument transfer						
6. Mastery of procedures						
O. Assisting in Orthodontics						Total ______
1. Setting proper instrumentation						
2. Materials and equipment handy						
3. Manipulation of dental materials						
4. Mastery of procedures						
P. Assisting in Oral Surgery						Total ______
1. Setting proper instrumentation						
2. Materials and equipment handy						
3. Instrument identification						
4. Maintenance of clear area						
5. Mastery of Procedures						

____
Supervisor

____
Date

CRITERIA FOR GRADE DISTRIBUTION
CLINICAL ROTATION

A. Appearance and Professional Conduct

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

B. Evacuation of Oral Cavity

Maximum: 35 Minimum: 7

32 - 35	A
27 - 31	B
16 - 26	C
11 - 15	D
7 - 10	F

C. Rubber Dam

Maximum: 45 Minimum: 9

41 - 45	A
34 - 40	B
19 - 33	C
12 - 18	D
7 - 11	F

D. Clear Field

Maximum: 25 Minimum: 5

23 - 25	A
19 - 22	B
12 - 18	C
8 - 11	D
5 - 7	F

E. Local Anesthetics

Maximum: 15 Minimum: 3

14 - 15	A
11 - 13	B
8 - 12	C
5 - 7	D
3 - 4	F

F. Examination

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 18	D
4 - 5	F

G. Managing the Patient

Maximum: 15 Minimum: 3

14 - 15	A
11 - 13	B
8 - 12	C
5 - 7	D
3 - 4	F

H. Asepsis

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

I. Transfer of Instruments

Maximum: 40 Minimum: 8

37 - 40	A
31 - 36	B
18 - 30	C
12 - 17	D
8 - 11	F

J. Restorative Procedures

Maximum: 35 Minimum: 7

32 - 35	A
27 - 31	B
16 - 26	C
11 - 15	D
7 - 10	F

K. Endodontic Procedures

Maximum: 25 Minimum: 5

23 - 25	A
19 - 22	B
12 - 18	C
8 - 11	D
5 - 7	F

L. Prosthodontics

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

M. Periodontics

Maximum: 25 Minimum: 5

23 - 25	A
19 - 22	B
12 - 18	C
8 - 11	D
5 - 7	F

N. Pedodontics

Maximum: 30 Minimum: 6

27 - 30	A
22 - 26	B
15 - 21	C
10 - 14	D
6 - 9	F

O. Orthodontics

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

P. Oral Surgery

Maximum: 25 Minimum: 5

23 - 25	A
19 - 22	B
12 - 18	C
8 - 11	D
5 - 7	F

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

I. Course Title: Expanded Functions in Restorative

II. Course Number: PAXD 029

III. Credit hours : 5

IV. Clock hours : 24 lecture; 108 Lab. and Clinic

V. Methodology : Lecture (X) Laboratory (X) Clinic (X)

VI. Description:

This course introduces the dental auxiliary student to the operational experiences necessary to develop the basic skills in the most common restorative operative procedures; in order to develop proficiency in this field. Laboratory and clinical practice will be included. Four handed dentistry concepts will be emphasized.

VII. Objectives:

A. General

To develop in the student the basic and necessary perceptomotor skills and a critical and autoevaluative mind in the utilization and manipulation of instruments and materials used during the different restorative procedures.

B. Operational

At the end of the educational experiences, the student will:

1. place and remove a rubber dam on a manikin in laboratory and on a clinic partner in clinic.

2. manipulate zinc oxide eugenol and zinc phosphate to be used as a temporary restoration, an intermediary base, or as a cement.
3. remove excess cement from a prepared tooth on a manikin.
4. place and remove matrices and wedges on a manikin in laboratory and on a patient in clinic.
5. apply cavity varnish to a prepared tooth on a manikin.
6. place, carve and finish an amalgam restoration in a class I, class II and class V cavity preparation on a manikin in laboratory and on a patient in clinic.
7. place and finish a composite resin restoration in a class III, class IV and class V cavity preparation on a manikin in laboratory and on a patient in clinic.
8. make an alginate impression for study casts on a laboratory partner.

VIII. Course Outline and Schedule of Instruction

A. Course Outline

1. Laboratory Policies and Procedures
2. Current Principles of Cavity Preparation. Biologic considerations
3. Dental Cements, Cavity Liners, and Temporary Restorations Project
    a. review manipulative considerations
    b. class I ZOE temporary
    c. class I varnish; Zinc Phosphate
    d. class III dycal
4. Rubber Dam Project
    a. biologic considerations

- b. selection of clamps
- c. punch rubber dam
- d. placement of rubber dam
- e. removal of rubber dam

5. Class III Resin Restoration – Project
   - a. biologic considerations
   - b. celluloid band and wedge
   - c. insertion
   - d. excess removal
   - e. polishing
6. Class IV Resin Restoration Project
   - a. celluloid band and wedge
   - b. insertion
   - c. excess removal
   - d. polishing
7. Class V Resin Restoration
   - a. celluloid band and wedge
   - b. insertion
   - c. excess removal
   - d. polishing
8. Class I Amalgam Restorations
   - a. biologic considerations
   - b. condensation

9. Class II Amalgam Restoration Project

   a. matrix band and wedge adaptation

   b. condensation

   c. excess removal

   d. carving

   e. finishing

10. Class V Amalgam Restoration Project

    a. condensation

    b. excess removal

    c. carving

    d. finishing

11. Excess Cement Removal Project

    a. removal of excess from temporary restoration (manikin)

12. Polishing Amalgams Project

    a. biologic considerations

    b. cooling agents effects

    c. polishing

13. Alginate Impression Project

    a. biologic considerations

    b. tray selection

    c. post dam

    d. H_2O-powder ratio

    e. spatulation

    f. make impression on laboratory partner

B. Schedule of Instructional Periods

Period	Hours	Lab/Clinic
1	4	Lab. Policies and Procedures Current Principles of Cavity Preparation
2	3	Dental Cements, Cavity Liners Temporary Restorations Project Biologic Considerations
3	4	Dental Cements, Cavity Liners Temporary Restorations
4	4	Rubber Dam Project (Lab)
5	*3	Rubber Dam (Clinic) patient partner
6	4	Class III Resin Restoration Biologic Considerations (Lab.)
7	4	Class III Resin Restoration (Lab.)
8	* 3	Class III Resin Restoration (Clinic)
9	4	Class IV Resin Restoration (Lab.)
10	4	Class IV Resin Restoration (Lab.)
11	* 3	Class IV Resin Restoration (Clinic)
12	4	Class V Resin Restoration (Lab.)
13	*4	Class V Resin Restoration (Clinic)
14	3	Class I Amalgam Restoration (Lab.)
15	4	Class I Amalgam Restoration (Lab.)
16	4	Class I Amalgam Restoration (Lab.)
17	*3	Class I Amalgam Restoration (Clinic)
18	4	Class II Amalgam Restoration (Lab.) Including matrix and wedge band adaptation
19	4	Class II Amalgam Restoration (Lab.)

Period	Hours	Lab/Clinic
20	*3	Class II Amalgam (Lab.)
21	4	Class II Amalgam Restoration (Clinic)
22	4	Excess Cement Removal Project (Lab.)
23	3	Polishing Amalgam Project (Lab.)
24	4	Polishing Amalgam Project (Clinic)
25	4	
26	3	*Clinic or *Laboratory
27	4	*Clinic or *Laboratory
28	4	*Clinic or *Laboratory
29	3	*Clinic or *Laboratory
30	4	*Clinic or *Laboratory
31	4	*Clinic or *Laboratory
32	3	*Clinic or *Laboratory
33	4	*Clinic or *Laboratory
34	4	*Clinic or *Laboratory
35	3	*Clinic or *Laboratory
36	4	*Clinic or *Laboratory

*Clinic: Students who demonstrate proficiency in laboratory will continue working on patients in clinic.

*Laboratory: Students who do not demonstrate proficiency will continue practice in laboratory until proficiency is demonstrated.

IX. Teaching Methods:

a. Lectures

b. Laboratory Projects

c. Clinic Patients

X. Media:

Manikins, chalkboard, demonstrations, discussions, Project Accorde materials.

XI. Evaluation:

Pencil and paper partial exams will be administered throughout the course after the completion of a project.

Laboratory performances will be observed during practice and each step in the restorative projects will be evaluated at completion.

The students will be questioned throughout the clinical phase to evaluate for integration of basic sciences with clinical tasks.

The clinical experiences will be evaluated on a scale of 4 - 1:

4 - Superior
3 - Good
2 - Needs improvement
1 - Non acceptable

Evaluative criteria and performance scales appended.

XII. Prerequisite Course:

All courses in 1st trimester
Preventive Dentistry II (concurrently)

XIII. Textbook:

Howard, William W. Atlas of Operative Dentistry, Mosby, 3rd Ed.

XIV. References:

1. Richardson, Richard E. and Barton, Roger E., The Dental Assistant, McGraw-Hill, 4th ed.

2. Tooth Carving Manual, Williams Gold Refining Co., Inc. 1967

EVALUATIVE CRITERIA AND PERFORMANCE SCALES

1. Insert and remove a minimum of 4 rubber dams in patients, at least two of them should meet the following minimum criteria:
   - a. Procedure explained to the patient: all reasonable questions answered.
   - b. Dam is punched for the appropriate quadrant.
   - c. Frame is correctly positioned.
   - d. Correct clamp (molar, bicuspid, or anterior) is used and placed.
   - e. Nose is not covered.
   - f. Clamp is placed to provide access to preparation.
   - g. Contacts are flossed and dam is tucked.
   - h. Dam is secured with floss at tooth furthest from clamp.
   - i. Wooden wedge is placed when Class II, III, or IV restoration if to be done.
   - j. Rubber dam is placed in ten minutes.
   - k. Minimum discomfort to patient and without trauma to soft tissue.
2. Manipulate zinc oxide eugenol and zinc phosphate to be used as a temporary restoration in a patient, minimum criteria are as follow:
   - a. Tooth surface and ZOE cement are flush along margin.
   - b. Major features of original are reproduced.
   - c. Restoration is out of occlusion.
   - d. Remove excess cement
3. Manipulate zinc oxide eugenol and zinc phosphate to be used as an intermediary base or as a cement in two patients, at least one of them should meet the following criteria:

   a. Restore ideal preparation form

   b. Is smooth

   c. Is done in 10 minutes

   d. Is not on margins or retentive areas

4. Place and remove matrices and wedges in patients, at least 2 of them should follow the minimum criteria:

   a. Band loop contoured and adjusted

   b. Band tightened

   c. Retainer parallel with the occlusal surfaces of the teeth.

   d. Band placed 1/2 to 1 mm. gingival to the gingival margin, and 1/2 to 1 mm. past the occlusal surface.

   e. Wedge placed snuggly against gingival surface, and no more than 4 - 5 mm. beyond the facial and lingual surfaces when viewed from the occlusal.

   f. Wedge and matrix band placed securely in place with compound.

   g. Compound applied to wedge and matrix band if necessary.

5. Apply cavity varnish to a prepared cavity. At least 4 of them should follow the following minimum criteria:

   a. Must be done before matrix band placement on Class II restorations.

   b. Two coats applied - each dried with gentle flow of air.

   c. Varnish must cover walls of preparation and not elsewhere.

   d. Procedure must be explained to patient and all reasonable questions answered.

   e. Procedure must be done within 15 seconds.

6. Apply calcium hydroxide to a prepared cavity. At least 4 of them should follow the minimum criteria:

a. Must cover only areas of greater than ideal depth.

b. Must not cover area of retention.

c. Must not cover area of margin.

d. Application must be completed within one minute.

7. Place, carve and finish a minimum of 2 CL I amalgam restoration meeting the following criteria:

   a. All steps in placement and condensation procedure must be done correctly within 10 minutes and at least two must be done under direct observation.

      1) Apply copal varnish cavity liner.

      2) Inject forcibly a small increment of amalgam partially filling the cavity.

      3) While placing amalgam, use the condenser to achieve some condensing action.

      4) Condense forcibly at least six times with small end of condenser using overlapping stepping actions.

      5) Inject a second increment of amalgam.

      6) Repeat above steps, injecting, amalgam, then condensing, until cavity preparation is partially overfilled, using large end of condenser last.

   b. Carving must be completed within 20 minutes and be at 1 or 2 level:

8. Place, carve and finish a minimum of 2 CL II amalgam restoration meeting the following criteria:

   a. Steps in placement and condensation as in CL I with additional steps.

      1) First inject amalgam to partially fill box form.

      2) Condense amalgam forcibly with overlapping stepping technique.

      3) Complete condensation into box form.

4) Condense amalgam forcibly with overlapping stepping technique in the remaining portion of preparation.

5) Complete in 20 minutes.

b. Tooth surface and amalgam are flush along the margins.

c. Proximal contact is reestablished.

d. Contour of the restoration approximates original contour of the tooth.

e. Surface of restoration has a dull luster.

f. Marginal ridge and contact area are undamaged.

g. Centric markins on tooth, restoration and adjacent teeth are same density.

h. Restoration is free from excursive contacts.

i. Complete in 25 minutes.

9. Place and finish 4 composite resin restoration including CL III, CL IV and CL V. Finishing must be completed within 30 minutes and be at I or 2 level.

	Morphology	Margins	Smoothness	Color
4	Restoration's contour is continuous with existing anatomical form. Contacts maintained.	No + or - margins.	Very smooth. No voids.	Excellent match. No difference in color.
3	As above, but can be slightly flat.	No + or - margins. No catches.	Smooth. No voids.	Good match. Difference within normal tooth shade range.
2	Restoration slightly overcontoured. Needs further finishing.	Small amount + Small one-way Catch.	Rough. No voids.	Not applicable.
I	No contact. Grossly overcontoured. Grossly undercontoured. Trauma to tooth or gums.	Too much + or - to finish. Two-way catch.	Rough, voids. Surface flecking or fractured.	Not a good match. Aesthetically displeasing shade or translucency.

	Smoothness	Morphology	Margins
4	Very smooth.	Restoration's contour is continuous with existing anatomical form, restores contours, cusps, grooves, planes, and marginal ridges; form is very well defined. Sharp	No + or - margins.
3	Smooth.	As above except that form does not have to be sharp.	No + or - margins.
2	Rough, but possible to improve by additional carving or polishing.	Slight + or - morphology that can be improved by additional carving or in polishing. Can be slightly flat in Class V.	+ or - margins that can be finished in polishing. Single catch.
1	Too rough to be smoothed with additional carving or in polishing. Pitted surface.	Excessive + or - morphology that cannot be finished in polishing. Dished in Class V.	Double catch Large + or - margin that cannot be finished in polish.

Finishing and polishing must be completed within 5 minutes and be at 1 or 2 level:

	Finishing	Polishing
4	No loss of function. Smooth, satin finish. Amalgam still sharp definitions. No marginal catches.	No loss of function, Shiny
3	As above, but lacks sharp definition	No loss of function. Shiny, some scratches.
2	Rough, not satin. One way catch in one place.	Not shiny, major scratches. No longer in occlusion.
1	Loss of function. Rough. No opposing contact.	Not shiny, major scratches. Must do more finishing. Trauma to tooth or associated structure.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

COURSE:

I. Title: Clinical Rotation I-b

II. Number: PAXD 047

III. Credit Hours: 5

IV. Clock Hours: 132

V. Methodology: Clinical

VI. Description:

The dental auxiliary student is provided with the practical clinical experiences related to chairside assisting in the general main clinic, oral surgery, pedodontic and orthodontic clinics. The student is also provided with the clinical experiences necessary for exposing and processing intraoral radiographs. Emphasis will be placed on patient management in order to ease performance by better patient-operator relations.

VII. Objectives

A. General

To develop the necessary skills for successful performance as a chairside assistant in the various types of dental clinics such as: Orthodontics, Oral Surgery, Endodontics, Periodontics, Prosthodontics, Pedodontics, and Radiology.

B. Operational

During the clinical experience the student will:

1. evacuate adequately the oral cavity during dental procedures by:

   - a. adequate grasping of evacuation tip
   - b. correct positioning of tip according to surface and quadrant
   - c. non-interference with dentist procedure
   - d. proper retraction
   - e. proper utilization of saliva ejector
   - f. constantly maintaining dry and clean area
   - g. proper gauze application

2. assist properly with rubber dam insertion and removal by
   - a. setting proper instrumentation
     - 1) completeness
     - 2) sequence
   - b. correct instrument transfer
   - c. adequate clamp selection and transfer
   - d. correct use of floss interproximally
   - e. correct use of air to invaginate rubber dam
   - f. correct and prompt placement of saliva ejector
   - g. appropriate removal of rubber dam
3. Maintain a clear field by correct use of
   - a. air and water syringe
   - b. proper cheek retraction
4. assist properly with the administration of local anesthetics by
   - a. preparing an adequate set up
   - b. proper placement of needle and syringe
   - c. proper instrument transfer
5. assist properly during the examination procedure by
   - a. proper charting of oral conditions as dictated
   - b. properly obtaining and recording of the medical, dental and personal history

   c. proper manipulation of armamentarium for obtaining vital signs and proper recording of them

6. assist properly in managing the patient by
   a. correctly positioning and draping of the patient in the chair
   b. proper manipulating of the dental unit
   c. being sensitive to patient's comfort
   d. being courteous and communicating effectively with patient.
7. utilize adequate asepsis procedures
   a. personal
   b. instruments
   c. area
8. transfer adequately the instruments by
   a. setting the proper instrumentation needed
   b. adequate patient, operator, and dental assistant position
   c. proper positioning of mobile cabinet
   d. correct instrument grasp
   e. proper delivery and receipt of instruments
   f. handling instruments in advance
   g. achieving smoothness in transfer of instrument
9. assist properly in endodontics procedures by
   a. setting the proper instrumentation needed
   b. having needed equipment and material on hand
   c. correct manipulation of dental materials
   d. proper instrument transfer
   e. taking, exposing and mounting radiographs correctly
10. assist adequately in Prosthodontics by
   a. setting the proper instrumentation needed
   b. having needed equipment and materials on hand

   c. correct manipulation of dental materials
   d. adequate construction of bite rims
   e. adequate construction of individual trays for dentulous and edentulous cases
   f. pouring impressions adequately
   g. adequate trimming of the models

11. assist adequately in Periodontics by
   a. setting the proper instrumentation needed
   b. having needed equipment and materials on hand
   c. correct manipulation of dental materials
   d. proper instruments' transfer
   e. helping properly in the placing and removal of periodontal dressings
   f. helping properly in the placing and removal of sutures

12. assist adequately in Pedodontics by
   a. proper patient management
   b. setting the proper instrumentation needed
   c. having needed equipment and materials on hand
   d. correct manipulation of dental materials
   e. proper instrument transfer
   f. adequately helping in the placement of stainless steel crowns
   g. adequately helping in the different pulpal procedures

13. assist adequately in Oral Surgery by
   a. setting the proper instrumentation needed
   b. having needed equipment and materials on hand
   c. correct manipulation of dental materials
   d. proper instrument transfer
   e. helping properly in the placing and removal of sutures

14. assist adequately in Orthodontics by
    a. setting the proper instrumentation needed
    b. having needed equipment and materials on hand
    c. correct manipulation of dental materials
    d. adequate trimming of models
15. apply the basic principles of radiology when exposing dental film in the clinic.
16. protect her patient and herself when exposing dental film in the clinic by utilizing all safety measures available.
17. position patient, x-ray film and x-ray machine correctly for taking radiographs in the clinic using the bisecting and the paralleling techniques.
18. demonstrate darkroom procedures when developing radiographs by utilizing care in maintaining correct temperature and time.
19. demonstrate ability in clinic to deal with patients who tend to gag by utilizing methods available to decrease the gag reflex.
20. demonstrate ability in clinic to cope successfully with the child patient and the adult apprehensive patient.
21. evaluate the completed radiographs taken on a patient in clinic to determine the level of acceptability by applying criteria from radiograph evaluation forms.

VIII. Course Outline and Schedule of Instruction

(Refer to Clinical Schedule)

IX. Media:

Clinical facilities, participation of dental students, and patients.

X. Evaluation:

Each student will have experiences in each of the different clinics and specialties, requiring achieving a minimal mastery level of 80%.

Students' evaluation of clinical performance will be performed daily using attached clinical evaluation form.

Each student will expose and process a total of 10 full mouth series, at least 5 of them during the second trimester.

The finished radiographic series will be evaluated according to the criteria specified in the evaluation form appended.

Students must attain a minimal mastery level of 75% on each full series with no more than 4 retakes allowed.

Hour allocation for assisting in the various specialty areas:

Clinic I	Hours
Orthodontic	8
Oral Surgery	24
Endodontic	12
Periodontics	20
Prosthodontic	8
Crown and Bridge	16
Pedodontic (including DAU)	16
Radiology	28
	132

This course will start in the second trimester for Track B students and will receive an "in progress" grade at the end of the second trimester. The final grade for the course will be given at the end of the third trimester when the radiology requirements will be completed.

Developed by Dr. Iris R. de Pérez

Revised by Chairside Assisting Staff, 1978

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

I. Title: Expanded Functions in Preventive Dentistry
II. Course Number: PAXD 023
III. Credit Hours: 3
IV. Clock Hours: 12 Lecture 72 Lab.
V. Methodology: Lecture and Laboratory
VI. Description:

A general review of the operational experiences necessary to develop the basic skills in the most basic preventive dentistry procedures in order to develop proficiency in this field. Clinical experience is provided.

VII. Objectives:

A. General

Impart knowledge and develop skills in applying preventive measures such as polishing coronal surfaces of teeth and application of anticariogenic agents. Experiences in the making of impressions and removal of surgical sutures will also be provided.

B. Operational

At the end of the educational experiences the student will:

1. In a written exam, name the different advantages of utilizing the porte polisher and wood points for polishing.
2. Enumerate on a written exam the advantages and disadvantages of utilizing the prophylaxis angle for polishing.

3. Describe on a written exam the most commonly used abrasives and polishing agents used in dentistry.
4. Identify on a written exam the different methods utilized to reduce friction during polishing procedures.
5. Arrange in a systematic order items of the oral inspection before performing polishing.
6. Utilize disclosing solution before and after polishing of all teeth to determine complete removal of all significant plaque, stain, and tarnish.
7. Perform a complete polishing of all coronal surfaces.
8. In writing, describe the benefits and limitations of fluoride-containing prophylaxis pastes, mouth rinses and sprays.
9. In writing, describe the differences between topical fluorides in gel form and solution form.
10. Demonstrate the correct armamentarium set up for a topical demonstration of fluoride.
11. In laboratory, apply fluoride to teeth using the tray technique.
12. Apply fluoride to teeth utilizing the method of isolation.
13. Seal pits and fissures of molars in a laboratory setting:
    - a. cleanse the tooth of all deposits and debris
    - b. isolate tooth
    - c. dry the tooth
    - d. apply conditioner for enamel etching
    - e. rinse thoroughly

f. dry thoroughly

g. apply the sealant

h. rinse

14. Discuss in class the effects of cooling agents on a tooth with sensitivity in the cervical area.

15. Discuss the factors contributing to hypersensitivity of a tooth.

16. Describe, on a written exam, the effects of a dentifrice containing strontium chloride and one containing sodium monofluorophosphate.

17. Demonstrate on a manikin tooth, the correct technique for a desensitizing treatment utilizing Sodium Fluoride aqueous solution.

18. Take an impression on a lab partner by:

    a. selecting proper tray

    b. beading of tray as needed

    c. mix impression material

    d. fill impression tray

    e. pre coat undercut areas

    f. proper insertion of tray

    g. proper removal of tray

19. Take a wax bite on a lab partner.

20. Describe on a written exam, the problems that may exist which may interfere with direct occlusion of study casts.

21. Describe on a written exam, the procedures for removal of interrupted sutures and continuous sutures.

VIII. Course Outline and Schedule of Instruction

Period	Hours	Topic	Laboratory
1	3	Laboratory Policies and Procedures Course Overview Objectives of Polishing Effects of Polishing on Tooth Structure Use of Mirror and Explorer	
2	3	Quiz #1 in Polishing Cleansing and Polishing Agents 1. Definitions a. abrasive b. abrasion c. polishing 2. Factors Affecting Abrasive Action a. characteristics of abrasive particles 1) shape 2) hardness 3) body strength 4) attrition resistance 5) particle size b. method of application of abrasives 1) quantity applied 2) speed of application 3) pressure of application c. Techniques for floss and tape	
3	3	Quiz #2 on Polishing	Lab. practice on manikin. Use of folcrum, mirror, and porte polisher explorer
4	3	Abrasive Agents 1. Silex 2. Pumice 3. Zirconium Silicate 4. Zinc Oxide	Videotape Polishing Procedures

Period	Hours	Topic	Laboratory
5	3	Factors to Teach Patients 1. Plaque control to retain polishing effect 2. Indiscriminate use of abrasives	Lab. practice on manikin motor driven instrument: prophy angle with rubber cup/brush use of fulcrum use of mirror
6	3	Quiz # 3 on Polishing	Lab. practice on motor driven instrument: prophy-angle, use of fulcrum, use of mirror, use of disclosing solution lab partner in clinic
7	3		Lab. practice: continue polishing on lab partner in clinic
8	3	Use of bridge cleaners	Lab. practice: continue polishing on lab partner in clinic
9	3		Lab. practice: continue polishing on lab. partner in clinic
10	3	Fluorides Fluoride ion-action Fluoride application 1. Principles for application a. preparation of teeth b. solution-gel c. isolation d. clock timing e. patient instructions 2. Armamentarium	

Period	Hours	Topic	Laboratory
11	3	Quiz #4 on Fluorides	Lab. practice: application of fluoride on lab. partner in clinic
12	3	Quiz #5 on Fluorides	Lab. Practice: application of fluoride on lab. partner in clinic
13	4	Sealants: Detection of Pit and Fissure Caries Application of Sealant 1. clean tooth surface 2. isolate the tooth 3. dry the tooth 4. apply conditioner 5. rinse thoroughly 6. dry again 7. apply sealant 8. apply U.V. light 9. rinse Factors which influence retention time Factors to teach a patient	
14	3	Quiz #6 on Sealants	Lab. practice: application of sealant on manikin tooth
15	3	Quiz #7 on Sealants	Lab. practice: application of sealant on manikin tooth
16	3	Care of Hypersensitive Teeth Factors contributing to hypersensitivity 1. exposure of cementum and dentin Methods for Desensitization 1. self care	

Period	Hours	Topic	Laboratory
		a. plaque control b. dentifrice c. self applied fluoride d. diet	
		Professional applications: Procedures	
17	4	Quiz #8 on Hypersensitivity	Lab. practice: desensitizing technique on a manikin tooth
18	4	Dental Impressions	Lab. practice taking of impression on lab. partner
		1. Clinical Procedures	
		a. assemble material and equipment	wax bite
		2. Prepare Patient	
		a. explain procedure b. drape c. inspect oral cavity d. free mouth of debris e. dry teeth f. prevention of gogging	
		3. Impression Techniques	
		a. maxillary b. mandibular	
19	3	Practical exam on impression making	Lab. practice: 1. taking impression on clinic patient 2. wax bite 3. polishing of teeth on clinic patient 4. toothbrush instruction

Period	Hours	Topic	Laboratory
20	4	Quiz #9 (Impression making) Practical exam on impression making	Lab. practice: 1. taking impression on clinic patient 2. wax bite 3. polishing of teeth on clinic patient 4. tooth brush inst.
21	4	Suture Removal: Suturing Techniques 1. Interrupted sutures 2. Continuous Procedure for Removal 1. Armamentarium 2. Patient Examination 3. Preparation of the patient 4. Retraction 5. Steps for removal 6. Precautions	Lab. practice: Clinic demonstration on patient (small groups)
22	4	Quiz #10 (Suture Removal) Practical Evaluation	Lab. practice: 1. tooth brush inst. 2. polishing and fluoride patient in clinic
23	4	Practical Evaluation	Lab. practice: 1. tooth brush inst. 2. polishing & fluoride on patient in clinic
24	4	Practical Evaluation	Lab. practice: 1. tooth brush inst. for plaque removal 2. polishing & fluoride on patient in clinic
25	4	Practical Evaluation	Lab. practice: 1. tooth brush inst. for plaque removal 2. polishing & fluoride on patient in clinic

IX. Evaluation and Grading Criteria

Minimal acceptable performance levels will be required for several tasks to successfully complete the Preventive Dentistry experiences. The tasks to be evaluated are the following:

I. Plaque Removal

In education of patient 100%

II. Polishing

According to classification

III. Fluoride

Dry field, proper time exposure, patient instructions 100%

IV. Impression Making - 70% of the time they perform it will have to be according to the following:

Be able to select proper size tray, mix impression materials to proper consistency. The completed impressions should contain adequate borders and be free of air bubbles.

There will be 10 written quizzes, 15 minutes each worth 10 points each for a total of 100 poins, 75% minimal mastery on each quiz.

Plaque Removal Techniques

a. Patient Use

	Proper	Improper
Toothbrush		
Floss		
Other aid		

b. Student Use

	Proper	Improper
Toothbrush		
Floss		
Other aid		

Polishing and Fluoride

a. Polishing

	Complete Removed	Incompletely Removed
Plaque		
Stain		
Gingival Tissues	Trauma	Non-trauma

b. Fluoride	Satisfactory	Unsatisfactory
Dry field		
Adequate time		
Patient instructions		

X. Teaching Methods:

Lectures, lab. practice, clinical practice

XI. Media:

Manikins
Chalkboard
Lab. partner
Clinic patient
Videotape – slides – overhead transparencies

XII. Textbook: None

XIII. References:

Current dental literature including dental journals.

COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Course:

I. Title: Seminar I

II. Number: PAXD 017

III. Credit Hours: 1

IV. Clock Hours: 12

V. Methodology: Discussions

VI. Description:

Time will be devoted to discussion of any clinical problem which may arise during the traditional chairside assisting experiences. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of each student.

VII. Objectives:

A. General

Acquire experience in problem-solving situations related to chairside assisting procedures.

B. Operational

During these seminar sessions the student will:

1. discuss in class, any problem associated with the chairside assisting experiences

2. demonstrate ability to problem-solve by verbalizing possible solutions to problems presented in class.
3. relate to classmates, a clinical experience that may have posed an unusual situation.

VIII. Schedule of Instruction:

(refer to class schedules)

IX. Evaluation:

pass or fail - based on attendance and participation.

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UNIVERSIDAD DE PUERTO RICO, RECINTO DE CIENCIAS MEDICAS
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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Dental Auxiliaries (Certificate Level)

I. Course Number PAXD 011 Title: Head and Neck Anatomy

II. Credit Hours: 1 Prerequisite: Dental Anatomy

III. Clock Hours: 12

IV. Description:

Students will be introduced to a general study of the anatomy of the head and neck, with special emphasis of the oral cavity and anatomical and functional aspects of the head and neck structures as related to dentistry and to the dental auxiliaries work.

V. Objectives

A. General

Impart a comprehensive knowledge about anatomical structures of the head and neck as these relate to dentistry, in general, and specifically, in dental assisting.

B. Operational

At the end of the course the student will:

1. discuss the anatomy of the temporal mandibular joint and its functions.
2. describe the oral cavity boundaries.
3. point out, from a series of slides, the palate, the tongue, the pharynx, the larynx, and related structures.
4. trace the main routes of the blood supply in the head and neck, on a written exam.

5. be aware of the importance of the oral cavity structures and its implication in dentistry.
6. distinguish the major salivary glands from the minor salivary glands, their ducts, and their functions.
7. differentiate the functions of the masticatory muscles.
8. list the facial expression muscles.
9. locate the nasal and paranasal sinuses on a skull.
10. identify the maxillary sinus and its importance to dentistry.
11. list the trigeminal and facial nerves.
12. describe the general functions of peripheral nerves.
13. discuss in class the twelve cranial nerves and their functions.
14. explain the divisions and areas of innervation of the trigeminal and facial nerves.

C. Evaluation Method and Grading Criteria

Daily lecture quizzes (4 quizzes of 15 points) (total 60 points), two written examinations-- one at mid term (40 points), and one at the end of the course (I00 points), total 200 points.

Minimum mastery level of 80% is required.

VI. Course Outline and Schedule of Instruction

A. Course Outline

1. Introduction and course overview
2. The temporo mandibular joint
    a. the mandible
    b. related information about joints

- c. anatomy of the T.M.J.
    - 1. articulative surfaces
    - 2. capsule and disk
    - 3. ligaments
- d. functional aspects of the T.M.J.

3. The oral cavity
    - a. boundaries
    - b. the palate
    - c. the tongue
    - d. pharynx and larynx and related structures
    - e. importance of these structures to dentistry
4. The salivary glands
    - a. related information about glands
    - b. major salivary glands and their ducts
    - c. minor salivary glands
5. Muscles of the face
    - a. related information about functions of the muscles of mastication and facial expressions
    - b. temporalis
    - c. masseter
    - d. internal pterygoid
    - e. external pterygoid
    - f. accesory muscles of mastication

6. Nasal and paranasal sinuses
    a. location
    b. function of sinuses
    c. the maxillary sinus and its importance to dentistry
7. The trigeminal and facial nerves
    a. general functions of peripheral nerves
    b. the twelve cranial nerves and their functions
    c. divisions and areas of innervation of the trigeminal and facial nerves and their relevance to dentistry.
8. Relation of blood supply, lymphatic system and transmission of disease to body.

B. Schedule of Instructional Periods

Period	Hours	Topic
I	1	Introduction: Course Overview
II	1	The temporal mandibular joint
III	1	Quiz The oral cavity
IV	1	Quiz The salivary glands
V	1	Partial Examination
VI	2	Quiz The muscles of mastication
VII	1	Quiz Nasal and paranasal sinuses
VIII	2	The trigeminal and facial nerves
IX	1	Relation of routes of blood supply, lymphatic system and transmission of disease to body.
X	1	Partial Examination

VII. Teaching Methods:

Lecture and discussion

VIII. Media:

Slides, pictures, diagrams, videotapes

IX. Textbook:

Reed and Sheppard, Basic Structures of the Head and Neck

X. References:

Wernet, Head Anatomy Pertinent to Dentistry.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Dental Auxiliaries (Certificate Level)

I Course Number: PAXD 009 Title: Oral Embryology and Histology

II Credit Hours: 2

III Clock Hours: 24 Didactic

IV Description:

An introductory study of the primary oral tissues. Emphasis is placed on the study of the microscopic anatomy of the tissues of the mouth and the embryonic development of the face and the oral cavity.

V Objectives:

A. General

Review basic concepts of the morphology and functions of the primary oral tissues, and familiarize the students with the development and histology of the face and oral cavity.

B. Operational

During the course the student will:

1. Define the terms Histology and Embryology.
2. State the components of a tissue.
3. Discuss the development of the face, by explaining the formation and fusion of the facial processes.
4. Describe the structures produced by the dental lamina.
5. Describe the three parts of a tooth bud.
6. Describe the three stages of tooth development.
7. State the structures each component of the tooth germ will produce.
8. Describe root formation.

9. Compare the mineralization process of dentin, enamel and cementum.
10. Describe enamel formation.
11. State enamel's physical and chemical properties.
12. Explain the role of the inner dental epithelium during the formation process of dentin and enamel.
13. Describe dentin formation.
14. State the modified types of dentin.
15. Compare primary and secondary dentin.
16. Explain the development of the pulp.
17. State the function and location of the apical foramen.
18. Compare the pulp in a newly erupted tooth and aged tooth.
19. Describe cementum formation and chemical composition.
20. State the functions of cementum.
21. Relate the mechanism of tooth eruption to clinical considerations.
22. Describe the process of shedding of deciduous teeth and relate it to the eruption of the permanent teeth.
23. Describe the formation of the periodontal ligament.
24. State the seven principal fibers, their origin, insertion, and function.
25. State structural components of alveolar process.
26. Differentiate between compact and spongy bones.
27. List the factors influencing the presence of spongy bone.
28. Define oral mucous membrane.
29. State the three types of oral mucosa, their functions and locations.

30. Describe the subdivisions of the gingiva, including location and clinical appearance.

31. Define the dentogingival junction and describe its importance.

C. Evaluation Method and Grading Criteria

Daily lecture quizzes (8 quizzes that sum up to 100 points) total of 90 points plus 10 points for class participation. Two written examinations, one at midterm and one at midterm and one at the end of the course (100 points each) (total 300 points in tests).

Minimum mastery level of 70% is required.

VI. Course Outline and Schedule of Instruction

A. Course Outline

1. Course Overview
    a. introduction to Oral Histology and Embryology
2. Growth and Development of the Human Face
    a. basic embryological concepts
    b. development of the face
        1. facial processes
        2. fusion of the processes
    c. development of the Oral Cavity
3. Development of the Teeth
    a. dental lamina
    b. dental organ
    c. dental papilla
    d. dental sac
    e. root formation
4. Concepts of General Histology
    a. components of a tissue
    b. classification of tissues

5. Histology of Enamel and Dentin
    - a. enamel composition and structures
    - b. properties and characteristics of enamel
    - c. clinical importance of the structure of enamel
    - d. dentin composition and structures
    - e. modified types of dentin
    - f. clinical importance of the structure of dentin
6. Histology of the Dental Cementum and Pulp.
    - a. Cementum
        1. functions
        2. location
        3. composition
        4. structural elements
        5. clinical importance
    - b. Dental Pulp
        1. composition
        2. structures in the pulp
        3. structural elements
        4. clinical importance
7. Periodontal ligament and alveolar process
    - a. periodontal ligament
        1. development
        2. structural components
    - b. alveolar process
        1. structure of alveolar process
8. Oral Mucous Membrane
    - a. definition and histologic structure
    - b. subdivisions of oral mucosa

9. The gingiva
    a. clinical considerations
    b. histologic structure
    c. dentogingival junction

B. Schedule of Instructional Periods

Period	Hours	Topic
I	2	Course Overview; Introduction to Oral Histology and Embryology
II	2	Quiz #1 Growth and Development of the Human Face
III	2	Quiz #2 Development of the Teeth
IV	2	Quiz #3 Con't. Development of the Teeth
V	2	Quiz #4 Concepts of General Histology
VI	2	Midterm Exam
VII	2	Histology of Enamel and Dentin
VIII	2	Quiz #5 Histology of Dental Cementum and Pulp
IX	2	Quiz #6 Periodontal Ligament and Alveolar Process
X	2	Quiz #7 Oral Mucosa and Gingiva
XI	2	Quiz #8 Tooth Eruption
XII	2	Final Exam

VII. Teaching Methods

Lectures supplemented with visual aids. Class discussions.

VIII. Media

Handouts, Diagrams, Kodachrome transparencies and overhead projectors

IX. Textbook

H.O. Torres and A. Ehrlich, Modern Dental Assisting, Saunders, latest ed.

X. References

1. M.J. Dunn, Dental Auxiliary Practice- Module 2 Dentofacial Growth and Development, Williams and Wilkins, latest ed.
2. R. A. Colby, D.A. Kerr, H.B.G. Robinson, Color Atlas of Oral Pathology, J.B. Lippincott Co., latest ed.
3. D. Permar; Oral Embryology and Microscopic Anatomy; Lea & Febiger; 4th edition.

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RATING SCALE FOR TRADITIONAL CHAIRSIDE AUXILIARY
LEVEL I, TRACK A

END OF FIRST TRIMESTER

Student's Name ____________________

1. The auxiliary is able to expose, process, mount and interpret intraoral radiographs that can be used effectively for a preliminary diagnosis, without exceeding a safe number of re-exposures, and applying accepted principles of X radiation hygiene.

    a. In a consistent efficient manner

    b. Moderately well

    c. Inconsistently and/or in a poor fashion

2. The auxiliary is able to assist in the oral and dental examination by charting oral conditions as dictated, by charting oral cancer inspection and by obtaining and recording the patient's medical, dental and personal history.

    a. In a consistent efficient manner

    b. Moderately well

    c. Inconsistently and/or in a poor fashion

3. The auxiliary is able to assist with the administration of local anesthetic by loading and unloading the syringe, setting up the tray, passing the topical anesthesia, transferring the instruments and observing the patient's reactions.

    a. In a consistent efficient manner

    b. Moderately well

    c. Inconsistently and/or in a poor fashion

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

PROGRAM: Dental Auxiliaries (Certificate Level)

I. Course Number PAXD 007 — Title: Oral Pathology II
Prerequisite: Microbiology/Oral Pathology I

II. Credit Hours: 2

III. Clock Hours: 24

IV. Description:

Advanced course in Oral Pathology for the dental auxiliaries. Emphasis is placed on common developmental disturbances of the face and teeth, and oral manifestations of systemic disorders.

V. Objectives

A. General

Acquaint the student with the specific lesions of the oral cavity:

1. developmental disturbances of the face and jaw
2. developmental disturbances of the teeth
3. common oral manifestations of systemic disease

B. Operational

At the end of the course the student will:

1. describe the developmental process which can cause cleft palate and cleft lip.
2. identify in a series of slides a bifid uvula and commisural lip.

3. explain the significance of Fordyc's granules to patient's oral health.
4. distinguish between micrognathia and macrognathia.
5. recognize torus mandibularis and torus palatinus
6. identify and describe developmental disturbances of tongue: microglossia, ankyloglossia, hairy tongue, geographic tongue.
7. differentiate between the following developmental disturbances involving size, shape, and number of teeth: microdontia, macrodontia, germination, fusion, concrescense, dilaceration, supernumerary teeth, anodontia, hypolcalcemia, dental fluorosis.
8. differentiate on a written exam the terms amelogenesis imperfecta, dentinogenesis imperfecta, enamel, hypoplasia
9. list clinical, radiographic, and histological features of periapical granulomas and apical cysts.
10. list clinical and radiographic features of a periapical abscess and focal sclerosing osteomyelitis.
11. define and be able to differentiate the following lesions of the oral mucosa: macule, papule, vesicle, bullae, erosion, nodule.
12. define the process by which a scar and crust are formed.
13. describe the clinical manifestations of selected bacterial, viral, and mycotic infections and/or conditions: tuberculosis, syphilis, herpex simplex, aphtous ulcer, herpangina, herpes zoster, herpes labialis, candidiasis, A.N.U.G. (Vincent's).

14. define licken planus and leukoplakia and mention the most common places of occurence intraorally.
15. describe the most common pigmented lesions in the oral cavity.
16. define angular cheilosis and its etiologic factors.
17. define carcinoma and describe the most common types related to oral structures.

VI. Course Outline and Schedule of Instructional Periods

A. Course Outline

I. Introduction and Course Overview
II. Developmental Disturbances of the Face and Jaws
III. Developmental Disturbances of the Teeth
IV. Common Oral Manifestations of Systemic Diseases

B. Schedule of Instructional Periods

Period	Hour	Topic
1	1	Introduction and Course Overview
2	1	Developmental Disturbances of the Face: Cleft Lip; Cleft Palate; Bifid Uvula; Commisural Lip; Microglossia; Macroglossia
3	1	Quiz Developmental Disturbances of the Face: Ankyloglossia, Bifid Tongue; Median Rhomboid, Glossitis; Fissured Tongue
4	1	Quiz. Developmental disturbances of the face: Geographic Tongue; Hairy Tongue; Fordyce's Granules; Developmental disturbances of the jaws: Torus Palatinus; Torus Mandibularis, macrognathia, micrognathia

Period	Hour	Topic
5	1	Quiz Developmental disturbances of the teeth: Anodontia; Partial Anodontia; Supernumerary Teeth; macrodontia; microdontia; Hypocalcemia; Dental Fluorosis, Dilaceration, Concrescence; gemination, Fusion
6 & 7	2	Partial Examination
8	1	Developmental disturbances of the teeth: Amelogenesis Imperfecta, Dentinogenesis Imperfecta Enamel Hypoplasia
9	1	Quiz Oral Manifestations of Systemic Diseases; Periapical Abscess, Granuloma, Cysts
10 & 11	2	Quiz Oral Manifestations of Systemic Diseases: Osteomyelitis, Lesions of Oral Mucosa
12 & 13	2	Quiz Oral Manifestations of Systemic Diseases: Primary Herpes, Herpes Zoster, Herpes Labialis; Herpangina
14 & 15	2	Quiz Oral Manifestations of Systemic Disease: Tuberculosis Pregnancy Tumors, Syphilis
16 & 17	2	Partial Examination
18 & 19	2	Oral Manifestations of Systemic Diseases: Moniliasis, A.N.U.G., Apthtous Ulcer
20	1	Quiz Traumatic Conditions: Mucocell and Traumatic Ulcer; Licken Planus
21	1	Quiz Pigmented Lesions in Oral Cavity, Angular Cheilosis, Licken Planus, Leukiplakia, Carcinoma
22	1	Review
23 & 24	2	Final Examination

VII. Teaching Methods: Lectures

VIII. Media: Demonstrations, slide presentations

IX. Evaluation: Class discussion, 10 points; nine quizzes, 90 points; two partial examinations, 100 points each (total 200 points) and one final examination, 100 points.

X. Prerequisite: Microbiology/Oral Pathology I

XI. Textbook: Torres, Ehrlich. Modem Dental Assisting. Sounders, 1976

XII. References: Colly, Ken, Robinson; Color Atlas of Oral Pathology;
Lippencott, 2nd. Edition
Blaskar, Synopsis of Oral Pathology, Mosby, Third Edition

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

COURSE

I. Title: Clinical Rotation II

II. Number: PAXD 021

III. Credit Hours: 3

IV. Methodology: Clinical

V. Description:

A general exposition to programmed progressive experiences in the execution of chairside assisting in the most common restorative operative procedures in order to develop skills and proficiency in this field, utilizing four handed dentistry concepts.

VI. Objectives:

A. General:

Acquire experience in the field of four-handed dental assisting in order to develop skills and proficiency.

B. Operational:

During the clinical experiences the student will:

1. Assist in the insertion and removal of twenty rubber dams in patients.
2. Assist in the manipulation of zinc oxide eugenol and zinc phosphate to be used as a temporary restoration in five patients.
3. Assist in the manipulation of zinc oxide eugenol and zinc phosphate to be used as an intermediary base or as a cement in ten patients.

4. Assist in the placement and removal of matrices and wedges in patients.
5. Assist in the application of cavity varnish to a prepared cavity.
6. Assist in the application of calcium hydroxide to a prepared cavity.
7. Assist in the placement and condensation procedures of ten class I amalgam restorations.
8. Assist in the placement and condensation of a minimum of ten class II amalgam restorations.
9. Assist in the placement and condensation of a minimum of two class V and four class I (with lingual and buccal steps) amalgam restorations.
10. Assist in the placement and finishing of ten composite resin restorations to include class III, class IV and class V.

VII. Evaluation and grading criteria (same criteria applicable to functions in Expanded Functions in Restorative Dentistry Clinic. Assistant's role - see appended form.)

VIII. Course outline and schedule of instruction (Refer to clinical schedules)

IX. Teaching Methods:

Clinical experiences and live demonstrations, when needed.

X. Media:

Clinical facilities and patients.

XI. Prerequisite courses:

All courses in first and second trimester and those concurrently in third trimester.

XII. References:

1. Richardson, Richard E. and Barton, Roger E., The Dental Assistant, McGraw-Hill, 4th. edition

2. Park, Ashman, and Shelly, A Textbook for Dental Assistants, Sounders, 2nd. edition, Phila. 1975.

3. Chasteen, Joseph E., Essentials of Clinical Dental Assisting. Mosby, St. Louis, 1975.

Developed by Chairside Staff, 1978

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

COURSE:

I. Title : Expanded Functions in Restorative Dentistry Clinic

II. Number : PAXD 030

III. Credit Hours : 3

IV. Methodology : Clinical

V. Description:

A general exposure to programmed progressive experiences in the execution of the most common restorative operative procedures in order to develop skills and proficiency in this field, utilizing four handed dentistry concepts.

VI. Objectives:

A. General:

This course is designed to expose the dental auxiliary to programmed progressive experiences in the execution of the most common restorative operative procedures in order to develop skills and proficiency in this field. Four handed dentistry concepts are emphasized.

B. Operational:

During the course the student will:

1. Insert and remove a minimum of twenty rubber dams in patients, at least ten of them should meet the following minimum criteria:

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- a. Procedure explained to the patient; all reasonable questions answered.
- b. Dam is punched for the appropriate quadrant.
- c. Frame is correctly positioned.
- d. Correct clamp (molar, bicuspid, or anterior) is used and placed.
- e. Nose is not covered.
- f. Clamp is placed to provide access to preparation.
- g. Contacts are flossed and dam is tucked.
- h. Dam is secured with floss at tooth furthest from clamp.
- i. Wooden wedge is placed when Class II, III, or IV restoration is to be done.
- j. Rubber dam is placed in ten minutes.
- k. Minimum discomfort to patient and without trauma to soft tissue.

2. manipulate zinc oxide eugenol and zinc phosphate to be used as a temporary restoration in five patients, at least three of them should meet the following minimum criteria:
   - a. Tooth surface and ZOE cement are flush along margin.
   - b. Major features of original are reproduced.
   - c. Restoration is out of occlusion.
   - d. Remove excess cement
3. manipulate zinc oxide eugenol and zinc phosphate to be used as an intermediary base or as a cement in ten patients, at least three of them should meeth the following criteria:
   - a. Restore ideal preparation form
   - b. Is smooth.

c. Is done in 5 minutes.

d. Is not on margins or retentive areas.

4. place and remove matrices and wedges in patients, at least 10 of them should follow the minimum-criteria:

   a. Band loop contoured and adjusted

   b. Band tightened

   c. Retainer parallel with the occlusal surfaces of the teeth.

   d. Band placed 1/2 to 1 mm. gingival to the gingival margin, and 1/2 to 1 mm. past the occlusal surface.

   e. Wedge placed snuggly against gingival surface, and no more than 4 - 5 mm. beyond the facial and lingual surfaces when viewed from the occlusal.

   f. Wedge and matrix band placed securely in place with compound.

   g. Compound applied to wedge and matrix band if necessary.

5. apply cavity varnish to a prepared cavity. At least 10 of them should follow the minimum criteria:

   a. Must be done before matrix band placement on Class II restorations.

   b. Two coats applied - each dried with gentle flow of air.

   c. Varnish must cover walls of preparation and not elsewhere.

   d. Procedure must be explained to patient and all reasonable questions answered.

   e. Procedure must be done within 15 seconds.

6. apply calcium hydroxide to a prepared cavity. At least 10 of them should follow the minimum criteria:
   a. Must cover only areas of greater than ideal depth.
   b. Must not cover area of retention.
   c. Must not cover area of margin.
   d. Application must be completed within one minute.
7. place, carve and finish a minimum of 10 CL I amalgam restoration meeting the following criteria:
   a. All steps in placement and condensation procedure must be done correctly within 5 minutes and at least two must be done under direct observation.
      1) Apply copal varnish cavity liner.
      2) Inject forcibly a small increment of amalgam partially filling the cavity.
      3) While placing amalgam, use the condenser to achieve some condensing action.
      4) Condense forcibly at least six times with small end of condenser using overlapping stepping actions.
      5) Inject a second increment of amalgam.
      6) Repeat above steps, injecting amalgam, then condensing, until cavity preparation is partially overfilled, using large end of condenser last.
   b. Carving must be completed within 10 minutes and be at 4 or 3 level:

	Smoothness	Morphology	Margins
4	Very smooth.	Restoration's contour is continuous with existing anatomical form, restores contours, cusps, grooves, planes, and marginal ridges; form is very well defined. Sharp	No + or - margins.
3	Smooth.	As above except that form does not have to be sharp.	No + or - margins.
2	Rough, but possible to improve by additional carving or polishing.	Slight + or - morphology that can be improved by additional carving or in polishing. Can be slightly flat in Class V.	+ or - margins that can be finished in polishing. Single catch.
1	Too rough to be smoothed with additional carving or in polishing. Pitted surface.	Excessive + or - morphology that cannot be finished in polishing. Dished in Class V.	Double catch Large + or - margin that cannot be finished in polish.

c. Finishing and polishing must be completed within 5 minutes and be at 1 or 2 level:

	Finishing	Polishing
4	No loss of function. Smooth, satin finish. Amalgam still sharp definitions. No marginal catches.	No loss of function, Shiny
3	As above, but lacks sharp definition	No loss of function. Shiny, some scratches.
2	Rough, not satin. One way catch in one place.	Not shiny, major scratches. No longer in occlusion.
1	Loss of function. Rough. No opposing contact.	Not shiny, major scratches. Must do more finishing. Trauma to tooth or associated structure.

8. place, carve and finish a minimum of 10 CL II amalgam restoration meeting the following criteria:
   - a. Steps in placement and condensation as in CL I with additional steps.
     - 1) First inject amalgam to partially fill box form.
     - 2) Condense amalgam forcibly with overlapping stepping technique.
     - 3) Complete condensation into box form.
     - 4) Condense amalgam forcibly with overlapping stepping technique in the remaining portion of preparation.
     - 5) Complete in ten minutes.
   - b. Tooth surface and amalgam are flush along the margins.
   - c. Proximal contact is reestablished.
   - d. Contour of the restoration approximates original contour of the tooth.
   - e. Surface of restoration has a dull luster.
   - f. Marginal ridge and contact area are undamaged.
   - g. Centric markings on tooth, restoration and adjacent teeth are same density.
   - h. Restoration is free from excursive contacts.
   - i. Complete in 15 minutes.
9. place, carve and finish a minimum of two CL V and four CL I (with lingual and buccal steps) amalgam restoration meeting the following criteria:
   - a. Tooth and amalgam are flush along the margins.
   - b. Contour of the restoration approximates the original contour of the tooth.
   - c. Surface of the restoration has a dull luster.

d. All steps in placement and condensation procedure must be done correctly within 5 minutes.

10. place and finish 10 composite resin restoration including CL III, CL IV and CL V. Finishing must be completed within 20 minutes and be at 4 or 3 level

	Morphology	Margins	Smoothness	Color
4	Restoration's contour is continuous with existing anatomical form. Contacts maintained.	No + or - margins.	Very smooth. No voids.	Excellent match. No difference in color.
3	As above, but can be slightly flat.	No + or - margins. No catches.	Smooth. No voids.	Good match. Difference within normal tooth shade range.
2	Restoration slightly overcontoured. Needs further finishing.	Small amount + Small one-way Catch.	Rough. No voids.	Not applicable.
1	No contact. Grossly overcontoured. Grossly undercontoured. Trauma to tooth or gums.	Too much + or - to finish. Two-way catch.	Rough, voids. Surface flecking or fractured.	Not a good match. Aesthetically displeasing shade or translucency.

VII. Evaluation and Grading Criteria

1. Use of a daily evaluation sheet

VIII. Course outline and schedule of instruction

(Refer to clinical schedule)

IX. Teaching Methods:

Clinical experiences and live demonstrations, when needed.

X. Media:

Clinical facilities and patients.

XI. Prerequisite courses:

All courses in lrst and 2nd trimester and those concurrently in 3rd trimester.

XII. References:

1. Richardson, Richard E. and Barton, Roger E.
2. Chasteen, Joseph E., Essentials of Clinical Dental Assisting. Mosby, St. Louis, 1975.

DAILY EVALUATION SHEET
FOR EXPANDED FUNCTIONS IN OPERATIVE DENTISTRY CLINIC

Student's Name: ____________________ Function: Auxiliary

Time In: ______________ Time Out: ________

Operations performed today: A, B, C, D, E, F, G,

Evaluative Criteria

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1	
A. Personal Appearance and Professional Conduct						Total ____
1. Uniform and personal neatness						
2. Manners, tact and verbal communication						
3. Alertness, initiative and awareness of responsibilities						
4. Attitude towards patient, supervisor and coworkers.						
B. Evacuation of Oral Cavity						Total ____
1. Grasping of evacuation tip						
2. Positioning of tip						
3. Non-interference with dentist						
4. Proper retraction						
5. Utilization of saliva ejector						
6. Maintenance of area - dry and clean						
7. Proper gauze application						
C. Maintenance of Clear Field						Total ____
1. Air syringe						
2. Water syringe						
3. Cheek retraction						
4. Tongue retraction						
5. Adequate suction						
D. Assistance with Local Anesthetic						Total ____
1. Adequate set-up						
2. Proper insertion of needle and syringe						
3. Proper insertion of carpule in syringe						
4. Proper instrument transfer						
E. Asepsis Procedures						Total ____
1. Personal						
2. Materials						
3. Instruments						
4. Equipment						

F. Transfer of Instruments

Total ____

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1
1. Setting proper instrumentation					
2. Adequate patient position					
3. Adequate assistant position & posture					
4. Position of mobile cabinet					
5. Instrument grasp					
6. Delivery of instruments					
7. Receipt of instruments					

G. Assisting in Restorative Procedures

Total ____

1. Setting proper instrumentation					
2. Equipment and materials handy					
3. Manipulation of dental materials					
4. Instrument transfer – four-handed dentistry					
5. Maintaining clean area					
6. Placement of band in matrix retainer					

____
Supervisor

____
Date

CRITERIA FOR GRADE DISTRIBUTION
EXPANDED FUNCTIONS IN OPERATIVE DENTISTRY CLINIC

Function: Auxiliary

A. Personal Appearance and Professional Conduct

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

B. Evacuation of Oral Cavity

Maximum: 35 Minimum: 7

37 - 35	A
27 - 31	B
16 - 26	C
11 - 15	D
7 - 10	F

C. Maintenance of Clear Field

Maximum: 25 Minimum: 5

23 - 25	A
19 - 22	B
12 - 18	C
8 - 11	D
5 - 7	F

D. Assist - Local Anesthetics

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

E. Asepsis

Maximum: 20 Minimum. 4

19 - 20	A
16 - 18	B
19 - 15	C
6 - 8	D
4 - 5	F

F. Transfer of Instruments

Maximum: 35 Minimum: 7

32 - 35	A
27 - 31	B
16 - 26	C
11 - 15	D
7 - 10	F

G. Assist Restorative Practice

Maximum: 30 Minimum: 6

27 - 30	A
22 - 26	B
15 - 21	C
10 - 14	D
6 - 9	F

DAILY EVALUATION SHEET
FOR EXPANDED FUNCTIONS IN OPERATIVE DENTISTRY CLINIC

Student's Name: ____________________ Function: Operator

Time In: ______________ Time Out: ______________

Operations performed today: A, B, C, D, E, F, G, H, I, J, K,

Evaluative Criteria

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1	
A. Personal Appearance and Professional Conduct						Total ____
1. Uniform and personal neatness						
2. Manners, tact and verbal communication						
3. Alertness, initiative and awareness of responsibilities						
4. Attitude towards patient, supervisor and coworkers.						
B. Rubber Dam						Total ____
1. Punch for appropriate quadrant						
2. Position of frame						
3. Selection and placement of clamp						
4. Use of dental floss						
5. Concern for patient's comfort						
6. Time consumed to place dam (terminal performance 10 min.)						
C. Manipulation of Zinc Oxide Eugenol and Zinc Phosphate as Temporary Restorations						Total ____
1. Margins						
2. Occlusion						
3. Removal of excess cement						
4. Finishing - Smoothness						
D. Manipulation of Zinc Oxide Eugenol and Zinc Phosphate as Intermediary Base						Total ____
1. Restoration of ideal preparation form						
2. Smoothness						
3. Margins						
4. Thickness of Base						
5. Time (terminal performance 5 min.)						
E. Placement and Removal of Matrices and Wedges						Total ____
1. Band correctly placed						
2. Band tightened						
3. Band loop contoured						
4. Band loop adjusted						
5. Retainer - position of						
6. Wedge placed snuggly against gingiva						

	Almost Perfect	Better than Average	Average	Below Average	Poor	
	5	4	3	2	1	
F. Application of Varnish to Cavity						Total____
1. Precedes matrix band placement						
2. Application and drying of 2 coats						
3. Time (terminal performance – 15 seconds)						
G. Application of Calcium Hydroxide to Cavity						Total____
1. Coverage – ideal depth						
2. Coverage – retention						
3. Coverage – margin						
4. Time (terminal performance – min.)						
H. Placement and Carving of C I and C V Amalgam Restorations						Total____
1. Placement and condensation – sequence of steps						
2. Placement and condensation – overall Technique						
3. Carving – smoothness						
4. Carving – contour						
5. Margins						
6. Marginal Integrity						
7. Density – same for restoration as for adjacent teeth						
8. Freedom from excursive contacts						
9. Time (terminal performance – min.)						
I. Placement and Carving of C II Amalgam Restorations						Total____
1. Placement and condensation – sequence of steps						
2. Placement and condensation – overall technique						
3. Carving – smoothness						
4. Carving – contour						
5. Margins						
6. Proximal Contact						
7. Contour						
8. Marginal Ridge – undamaged						
9. Density – same for restoration as for adjacent teeth						
10. Freedom from excursive contacts						
11. Time (terminal performance – 10 min.)						
J. Finishing and Polishing Amalgam Restorations						Total____
1. Finishing – smoothness						
2. Finishing – no loss of function						
3. Finishing – sharp definition						
4. Finishing – marginal catches						
5. Polishing – smoothness						
6. Polishing – no loss of function						
7. Polishing – luster – dull						

K. Resin Restorations

Total ____

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1
1. Contour					
2. Marginal Integrity					
3. Smoothness					
4. Color					
5. Band and Wedge					
6. Proximal contact					

____
Supervisor

____
Date

EXPANDED FUNCTIONS IN OPERATIVE DENTISTRY
CRITERIA FOR GRADE DISTRIBUTION

Function: Operator

A. Personal Appearance and Professional Conduct

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

B. Rubber Dam

Maximum: 30 Minimum: 6

27 - 30	A
22 - 26	B
15 - 21	C
10 - 14	D
6 - 9	F

C Zinc Eugenol - Temporary Restorations

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

D. Zinc Eugenol - Intermediary Base

Maximum: 25 Minimum: 5

23 - 25	A
19 - 22	B
12 - 18	C
8 - 11	D
5 - 7	F

E. Matrices and Wedges

Maximum: 30 Minimum: 6

27 - 30	A
22 - 26	B
15 - 21	C
10 - 14	D
6 - 9	F

F. Varnish

Maximum: 15 Minimum: 3

14 - 15	A
11 - 13	B
8 - 12	C
5 - 7	D
3 - 4	F

G. Calcium Hydroxide

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

H. Placement and Carving C I and C V

Maximum: 45 Minimum: 9

41 - 45	A
34 - 40	B
19 - 33	C
12 - 18	D
7 - 11	F

I. Placement and Carving C II

Maximum: 55 Minimum: 11

50 - 55	A
42 - 49	B
25 - 41	C
17 - 24	D
11 - 16	F

I. Finishing and Polishing

Maximum: 35 Minimum: 7

32 - 35	A
27 - 31	B
16 - 26	C
11 - 15	D
7 - 10	F

K. Resins

Maximum: 30 Minimum: 6

27 - 30	A
22 - 26	B
15 - 21	C
11 - 14	D
6 - 9	F

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

COURSE:

I. Title : Expanded Functions in Preventive

II. Number : PAXD 024

III. Credit Hours : 2

IV. Clock Hours : 24

V. Methodology : Clinic

VI. Description :

A general exposition to programmed progressive experiences in the execution of basic preventive procedures in order to develop skills and proficiency in this field.

VII. Objectives:

A. General:

Introduce the dental assisting student to experiences in performing basic preventive procedures.

B. Operational:

During the course the student will have completed the following experiences in a specified number of patients:

1. do a complete polish on 3 patients for whom polishing is indicated, within 20 minutes using correct finger rests and chair positions, with prophy cup, pumice polish and using dental floss to clean interproximal.

Minimum requirements

a. no overheating of teeth

   b. no trauma to hard or soft tissue

   c. no plaque upon disclosing

   d. no pumice in soft tissue margins or sulci

   e. no stain or tarnish

2. give fluoride application to 5 patients using the tray method by selecting and fitting the correct size tray, giving post application instructions and loading tray with appropriate amount of fluoride

   Minimum requirements

   a. correct tray size

   b. teeth isolated; cotton roll/gauze in place to absorb saliva

   c. teeth dried with compressed air

   d. adequate amount of fluoride gel in tray

   e. teeth covered, gel expressed between teeth, but not excess

   f. tray maintained in position for 4 minutes

   g. tray removed carefully; residual gel wiped or evacuated

   h. post-application precaution re: no rinse, eat, drink for 30 minutes, given

   i. procedure, both arches, completed within 15 minutes

3. Take and remove 5 maxillary and mandibular impressions of the teeth and gingiva meeting the following minimum requirements

   a. proper tray selection

      1) tray covers teeth without impinging on tongue, gingiva, and lips

2) tray extends to junction of hard and soft palate or retromolar pad

3) tray covers tuberosity

4) periphery of tray is within 5 - 15 mm. of reflex

b. proper tray modification

1) bending

2) waxing

c. proper tray loading

1) excess

2) deficiency

d. proper placing

e. proper removal

f. proper recording of teeth, ridges, palate, gingiva, reflex areas, tuberosity

g. no void (greater than 1 mm.) in any area other than the reflex

h. no voids in the reflex or palatal area greater than 6 mm.

i. material will not ooze out the posterior of the tray beyond 5 mm.

1	Correct Tray Size	Records in material: teeth, ridges, palate, gingiva, reflex areas and tuberosity.	No excess of material. No voids.
2			Small excess of material, or small voids or bubbles.
3	Tray size is correct, but should be modified by bending or wax	Not Applicable	Not Applicable
4	Tray size incorrect	Above elements not demonstrated or demonstrated with large voids.	Large voids in material.

j. procedure should be at 1 or 2 level & completed in 20 minute.

4. apply occlusal sealants in a quadrant in at least 2 patients meeting the following minimal requirements
    a. adequate debris removal
    b. proper teeth conditioning
    c. proper teeth isolation
    d. proper coverage with adhesive
    e. proper polimerizing
    f. procedure completed in 60 minutes
5. will adequately apply desensitizing agents on selected patients with hypersensitive teeth following minimal requirements
    a. area free of debris
    b. dry area with due consideration to teeth sensitivity
    c. proper application of materials until sensitivity is reduced.

VIII. Course Outline and Schedule of Instruction:

(Refer to attached Clinical Schedule)

IX. Teaching Method:

Clinical experiences, live demonstration, when needed.

X. Media:

Clinical facilities and patients. (Patients will be screened by a dentist or dental hygienist to determine if polishing is necessay)

XI. Evaluation

Students' evaluation of clinical performance will be performed daily using attached clinical form.

XII. Prerequisite course:

1. applied Microbiology and Sterilization Procedures
2. Chairside Assisting
3. Preventive Dentistry (Lecture)

XIII. Textbook: None

DAILY EVALUATION SHEET
FOR EXPANDED FUNCTIONS IN PREVENTIVE DENTISTRY

Student's Name: ____________________ Function: __________
Time In: ____________ Time Out: __________

Operations performed today: A, B, C, D, E

Evaluative Criteria

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1	
A. Personal Appearance and Professional Conduct						Total ______
1. Uniform and personal neatness						
2. Manners, tact and verbal communication						
3. Alertness, initiative and awareness of responsibilities						
4. Attitude towards patient, supervisor and coworkers						
B. Polishing						Total ______
1. Finger rests						
2. Chair position						
3. Prophy cup						
4. Absence of Pumice on tissue margins and sulci						
5. Floss						
6. Absence of trauma to tissue						
7. Absence of plaque						
8. Absence of stains and tarnish						
9. Time (according to classification)						
C. Fluoride Application						Total ______
1. Selecting and fitting correct size tray						
2. Isolation of teeth						
3. Cotton roll - gauze in place						
4. Teeth dried						
5. Adequate amount of fluoride gel						
6. Gel - proper amount						
7. Tray in position for 4 minutes						
8. Post application precautions explained						
9. Time (term. perf. - both arches 20 min.)						
D. Maxillary and Mandibular Impressions						Total ______
1. Tray selection and modification						
2. Tray placement						
3. Tray loading						
4. Tray removal						
5. Recording of teeth, ridges, palate, etc.						
6. No void greater than 1 mm. other than in reflex area						
7. No void in reflex and palatal area greater than 6 mm.						
8. No oozing of material out of tray beyond 5 mm.						

E. Application of occlusal sealants

Total ______

	Almost Perfect 5	Better than Average 4	Average 3	Below Average 2	Poor 1
1. Debris removal					
2. Teeth conditioning					
3. Teeth isolation					
4. Coverage with adhesive					
5. Polimerizing					

____
Supervisor

____
Date

EXPANDED FUNCTIONS IN PREVENTIVE DENTISTRY
CRITERIA FOR GRADE DISTRIBUTION

A. Personal Appearance and Professional Conduct

Maximum: 20 Minimum: 4

19 - 20	A
16 - 18	B
9 - 15	C
6 - 8	D
4 - 5	F

B. Polishing

Maximum: 45 Minimum: 9

41 - 45	A
34 - 40	B
19 - 33	C
12 - 18	D
7 - 11	F

C. Fluoride Application

Maximum: 45 Minimum: 9

41 - 45	A
34 - 40	B
19 - 33	C
12 - 18	D
7 - 11	F

D. Maxillary and Mandibular Impressions

Maximum: 40 Minimum: 8

	37 - 40	A
	31 - 36	B
30 - 35	~~18 - 11~~	C
25 - 29	~~12 - 17~~	D
	8 - 11	F

E. Occlusal Sealants

Maximum: 25 Minimum: 5

23 - 25	A
19 - 22	B
12 - 18	C
8 - 11	D
5 - 7	F

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Course

I. Title: Seminar II

II. Number: PAXD 018

III. Credit Hours: 1

IV. Clock Hours: 12

V. Methodology: Discussion

VI. Description:

Time will be devoted to discussion of any problem which may arise during the clinical experiences in expanded functions in restorative, and preventive. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of each student.

VII. Objectives:

A. General

Acquire experience in problem-solving situations related to expanded functions in restorative and preventive.

B. Operational

During these seminar sessions the student will:

1. demonstrate ability to problem-solve by verbalizing possible solutions to problems presented in class.
2. relate to classmates, a clinical experience that may have posed an unusual situation.

VIII. Schedule of Instruction

(refer to class schedule)

IX. Evaluation

pass or fail - based on attendance and participation

rls

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

PUERTO RICO EXPERIMENTAL MODEL
DENTAL AUXILIARY TRAINING PROGRAM

FINALIZED 02 YEAR CURRICULUM

TABLE OF CONTENTS

I. Tasks

II. Course Distribution

III. Course Description

IV. Course Outlines

TASKS

I

TASKS FOR LEVEL II, TRACK A

The following tasks will be performed under the supervision of a dentist:

1. Obtain and interpret a medical, dental and personal history.
2. Perform a general appearance exam.
3. Perform preliminary intra and extraoral exam.
    a. visual
    b. palpation
    c. assess occlusal status
4. Perform preliminary intraoral hard tissue exam:
    a. visual
    b. tactile (locate deposits and stains)
    c. detect caries
5. Perform intraoral chartings
    a. periodontal
    b. plaque indices
    c. bleeding points
    d. adult dentition
6. Detect deposit retention factors
    a. teeth and appliance
    b. salivary consistency
    c. non-normal chewing
7. Detect oral habits
    a. deviant swallowing
    b. digital sucking
    c. clenching
    d. bruxing
    e. tongue thrust
    f. mouth breathing

8. Detect supragingival and subgingival calculus.

9. Detect periodontal pocket depth.

10. Remove supragingival and subgingival calculus.
    a. select proper instruments
    b. use order of instrumentation to minimize time and trauma
    c. apply scalers
    d. apply curets
    e. apply ultrasonic scaler

11. Perform root planing and soft tissue curettage.
    a. select proper instruments
    b. uses order of instrumentation to minimize time and trauma

12. Apply post-up medicaments and procedures
    a. remove and apply periodontal packs
    b. give post-op instructions

13. Perform a nutritional analysis
    a. instruct patient in recording food diary
    b. evaluate patient's diary
        1) adequacy of foundation foods
        2) frequency of sweets
    c. counsel patient
        1) "why" of the diet
        2) "what" of the diet
    d. educate patient in role of sugars in dental disease
    e. follow-up counseling

14. Perform diagnostic testing
    a. take a sample of the patient's dental plaque and prepare a slide for phase microscope.

- b. prepare a viscosity and flow test
- c. prepare, incubate and interpret the snyder test

15. Develop and implement individualized patient's education program.
    - a. dental office setting
        - 1) assess patient's individual needs
        - 2) plan, develop and evaluate effectiveness of educational program for individual patient.
    - b. Community setting
        - 1) identify community target groups
        - 2) assess target group oral health needs to determine priority needs
        - 3) assess community resources
        - 4) plan educational program
        - 5) implement educational program
        - 6) evaluate the effectiveness of the program
        - 7) alters programs to improve effectiveness

COURSE DISTRIBUTION

II

200

02 YEAR CURRICULUM

SUMMER	CLASS	CLINIC	LAB.	CREDIT
Periodontics	36	-	-	3
Advanced Preventive Dentistry	24	-	72	4
	60		72	7
FIRST TRIMESTER				
Sociology	48	-	-	4
Dental Health Education	48	-	-	4
Anatomy/Physiology	36	-	-	3
Pharmacology	36	-	-	3
General Organic and Inorganic Chemistry	36	-	-	3
Clinic I	-	132	-	4
	204	132		21
SECOND TRIMESTER				
Special Need Patients	24	-	-	2
Biochemistry and Nutrition	36	-	-	3
Dental Public Health and Critique of Dental Literature	48	-	-	4
Seminar I	12	-	-	1
Clinic II	-	252		7
	120	252		17
THIRD TRIMESTER				
Seminar II	12	-	-	1
Clinic III	-	324	-	9
	12	324		10

COURSE DESCRIPTION

III

02 YEAR CURRICULUM COURSE DESCRIPTION

First Trimester Credits

Sociology 4

This course is intended to provide dental auxiliary student with the basic sociological concepts with emphasis in the ecological approach of man. It provides the student an understanding of the interaction between the physical sociocultural environment with man's own values, beliefs, and mores.

Dental Health Education 3

This courseis designed to develop in the dental auxiliary student the appropriate knowledge, skills, and attitudes needed for an effective participation in planning developing and evaluating oral health educational activities. It emphasizes concepts, practices, and trends in health education geared to foster the development of positive attitudes toward oral health. Practical experiences will be provided in developing educational activities in a community setting: classroom, and family clinic.

Periodontics 3

Didactic course intended to provide the dental auxiliary student knowledge about normal periodontium, principles of periodontology and the etiology and classification of periodontal disease. The emergency and most common surgical procedures in the treatment of periodontal disease are also discussed. Special emphasis is given to preventive measures within the scope and responsibility of the dental auxiliary.

Advanced Preventive Dentistry 4

Course is designed to build upon the concepts and principles that the dental auxiliary has been exposed to, previously.

It includes experiences which will expand knowledge and procedures applicable to performing primary and secondary oral health services.

Anatomy and Physiology 3

The course presents core concepts in anatomy and physiology and is intended to provide dental auxiliaries with the knowledge of normal human anatomy and how the body functions in normal situations for recognizing the manifestation of disease and anatomic anomalies.

Credits

Pharmacology 3

This course will introduce students to terminology, pharmacological principles of drug action and the therapeutic and toxicologic effects of clinically important drugs in medical and dental practice.

General Organic and Inorganic Chemistry 3

This course presents a balanced treatment of modern theoretical and descriptive basic chemistry. It consists of two units: general inorganic and organic chemistry. There are no laboratory periods as requirements.

Clinic I 4

Clinical course provides the opportunity for students to develop those skills necessary for performing an oral prophylaxis and patient education. Students will also apply correct techniques for gathering of diagnostic data pertinent to the delivery of oral hygiene services.

Second Trimester

Special Need Patients 2

This course is intended to provide the second year dental auxiliary student with basic knowledge and skills in the treatment of handicapped patients. It consists of didactic and practical experiences related to management and treatment of handicapped patients.

Emphasis will be placed in the development of professional judgment as it relates to the special needs of handicapped patients.

Nutrition/Biochemistry 3

This course provides the student with basic information regarding the biochemical aspects of nutrients, their metabolic roles, and interrelationship. The effects of each or excess on body tissues and nutrition requirements and distribution in foods is discussed. Techniques for the recording and evaluation of nutritional data and counseling of dental patients are amply discussed. The interrelationships of nutrients and dental health is thoroughly explained.

Dental Public Health and Critique of Dental Literature 3

This course is designed to provide the dental auxiliary student with knowledge skills and attitudes in the public health aspects of dental practice.

Emphasis will be placed on principles and methods of general epidemiology and statistics and intervention strategies as applied to dental health education. Students skills will be developed in the use, evaluation, and interpretation of scientific literature.

Credits

Clinic II 7

This clinical course provides the opportunity for students to develop those skills necessary for the treatment of patients with heavy calcified deposits and moderate to severe gingivitis. Students learn how to render preliminary treatment to patients with periodontitis and how to determine if patients require further periodontal treatment. Students also practice using ultrasonic scaling devices and charting oral conditions. In addition, students will also rotate through the Veteran's Administration Hospital dental clinic where they gain experiences working with hospitalized patients; they rotate through the clinic of patients with special needs where they plan and carry out preventive dentistry plans for these patients.

Seminar I 1

Time will be devoted to discussion of any problem which may arise during the clinical experiences in the assigned clinics. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of dental students.

Third Trimester

Clinic III 9

This clinical course further expands the student's experiences in working with patients with heavy calcified deposits and patients with periodontal involvements. Students continue to rotate through the Veteran's Administration Hospital dental clinic and through the clinic of patients with special needs. Emphasis will be placed on the development of professional judgment.

Seminar II 1

Time will be devoted to discussion of any problem which may arise during the clinical experiences in the assigned clinics. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of each student.

COURSE OUTLINES

UNIVERSIDAD DE PUERTO RICO, RECINTO DE CIENCIAS MEDICAS — UPR RCM — G.P.O. BOX 5067 SAN JUAN, PUERTO RICO 00936 — TEL 767-9626

COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Experimental Model Dental Auxiliary Training Program

I. Course Title: Periodontics

II. Number:

III. Credit Hours: 3

IV. Clock Hours: 36

V. Type of course: Didactic/Lab-demonstration

VI. Description:

Didactic course intended to provide the dental auxiliary student knowledge about normal periodontium, principles of periodontology and the etiology and classification of periodontal disease. The emergency and most common surgical procedures in the treatment of periodontal disease are also discussed. Special emphasis is given to preventive measures within the scope and responsibility of the dental auxiliary.

VII. Objectives:

A. General

This course will enable the student to utilize and apply knowledge relative to the normal conditions of the periodontium and deviations from the normal, which include etiological aspects, preventive measures and surgical procedures involved in the treatment of periodontal disease.

B. Operational

T_1 Explain locations and functions of periodontal structures

E_1 Name four tissues that basically make up the normal periodontum.

E_2 Identify three different types of soft tissues that line the oral cavity.

E_3 Locate the three contiguous areas of the gingiva.

E_4 State the difference between attached and marginal gingiva.

E_5 Relate a gingival sulcus to marginal gingiva.

E_6 List-factors that contribute to a firm dentogingival junction.

T_2 Describe type, location and function of the periodontal ligaments

E_1 Identify the connective tissue fibers (collagen fibers) that function to hold the marginal gingiva in contact with the tooth.

E_2 Name four groups of collagen fibers.

E_3 Identify the portion of the alveolar process that anchors the fibers of the periodontal ligament.

E_4 Explain four functions of periodontal ligament.

T_3 Describe the alveolar process considering the anatomical relation to the teeth they surround.

E_1 Locate the interproximal bone, intraradicular and radicular bone.

E_2 Name two factors affecting thickness and contour of alveolar bone.

T_4 Explain the functions of cementum.

T_5 Describe the etiology of periodontal disease

E_1 Define periodontal disease

E_2 State the two types of etiological factors in periodontal disease

E_3 Define local etiological factors

E_4 Differentiate between a local irritating and a local functional factors, and give three examples of each type.

E_5 Define a systemic factor in periodontal disease and give two examples.

T_6 Describe the functions of plaque, material alba and calculus as initiator of inflamatory periodontal disease.

E_1 Name the different mechanisms by which soft deposits causes gingival and periodontal inflammation.

E_2 Describe the role of calculus in periodontal disease.

T_7 Evaluate oral hygiene effect on the tissues of the oral cavity

E_1 Describe the effect of gingival stimulation

E_2 Name two destructive effects of toothbrush trauma and improper use of dental floss.

T_8 Analyze predisposing etiological factors created by inadequate dental restoration and prostheses and food impaction.

E_1 Name six predisposing etiological factors created by inadequate dental restorations and prostheses.

E_2 State why this conditions are considered predisposing factors.

E_3 Name two effects of food impaction on periodontal tissues.

T_9 Explain the effect of oclussal forces and para-functional occlusal habits upon the tissues of the periodontium.

E_1 Name three para-functional occlusal habits that create excessive forces upon the tissues of the periodontium.

E_2 Relate occlusal forces and degenerative changes in the periodontal structures.

T_{10} Evaluate mouth breathing as predisposing factor in periodontal disease.

E_1 Define mouth breathing

E_2 Describe the effect of mouth breathing in the gingival tissues.

T_{11} Describe the role of the systemic factors in the etiology of periodontal disease.

E_1 Name the mayor categories of systemic factors that play a role in periodontal disease

E_2 Relate the role of systemic and local factors in the etiology of periodontal disease.

E_3 State three situations in life when hormonal changes can cause marked effects on gingival tissues.

E_4 Explain the role of nutritional factors in the initiation of periodontal disease.

T_{12} Explain the diagnostic signs and symptoms of periodontal disease.

E_1 Describe the changes that a periodontal condition produces in the gingiva in terms of :

a) Color
b) Texture
c) Consistency
d) Size
e) Periodontal pocket depth
f) Bleeding and exudate

E_2 List the anatomical landmarks which are significant in radiographic interpretation.

E_3 Name four radiographic signs indicative of periodontal disease.

E_4 State two reasons why radiographs of diagnostic is essential for evaluating the presence of periodontal disease.

T_{13} Evaluate gingivitis according to clinical characteristics, etiology pathogenesis, prognosis and treatment.

E_1 Define gingivitis.

E_2 Classify gingivitis according to type, extent and distribution of inflammatory reaction.

E_3 Describe the clinical characteristics of chronic gingivitis

E_4 State the etiological factor of chronic gingivitis.

E_5 State how nutritional deficiencies can affect gingival tissues reaction to local irritating factors.

E_6 Relate control of local etiologic factors to prognosis of chronic gingivitis.

E_7 Describe the steps in the treatment of chronic gingivitis.

T_{14} Explain how systemic factors modify chronic gingivitis.

E_1 Name four systemic factors which modify gingival tissues response to irritation.

E_2 State changes in gingival tissues of leukemic patients related to color, contour and consistency.

E_3 Relate hormonal changes characteristic of puberty, to inflammatory response to local irritants.

E_4 List preventive measures that should be emphasized in pregnant patients.

T_{15} Analyze etiology, characteristics and treatment of Gingival Enlargement.

E_1 Differentiate between inflammatory and noninflammatory gingival enlargement.

E_2 State the clinical characteristics of familiar hereditary gingival enlargement.

E_3 Describe the treatment for this condition

T_{16} Explain root planning and gingival curettage procedures.

E_1 Define root planning and gingival curettage.

E_2 Explain indications for gingival curettage.

E_3 State contra-indications for gingival curettage.

E_4 Establish treatment sequence for gingival curettage.

T_{17} Describe periodontal disease, considering affected areas and characteristics of the condition.

- E_1 State areas affected by a periodontal disease.
- E_2 Explain the difference between gingivitis and periodontitis relating to extent of disease.
- E_3 Describe changes in alveolar bone as a result of periodontal disease.
- E_4 State clinical characteristics of period disease.

T_{18} Evaluate gingival and periodontal pocket formation

- E_1 Differentiate between gingival and periodontal pocket
- E_2 Describe the mechanism of pocket formation
- E_3 Name two types of periodontal pockets

T_{19} Analyze periodontosis

- E_1 Differentiate between periodontitis and periodontosis
- E_2 State the clinical characteristics of periodontosis

T20 Describe different periodontal problems

- E_1 Explain gingival recession.
- E_2 State five predisposing factors for gingival recession.
- E_3 Define pericoronitis.
- E_4 Name the etiological factors for pericoronitis.
- E_5 Define periodontal abscess.
- E_6 Differentiate between the acute and the chronic stages of a periodontal abscess.

T_{21} Evaluate principles of periodontal surgery.

- E_1 List the reasons for performing periodontal surgery
- E_2 Name five methods for surgical elimination of pockets

T_{22} Discuss the uses of gingivectomy, osteoplasty, periodontal flap and temporary stabilization.

E_1 Define gingivectomy

E_2 State the indications and contra-indications of gingivectomy

E_3 Define osteoplasty

E_4 State the indications for a periodontal flap

E_5 State the indications for temporary stabilization

T_{23} Explain the periodontal healing process.

E_1 Name the steps in the healing process after root planing and curettage.

E_2 Discuss the significance of the clot in wound healing.

E_3 Explain the effects of instrumentations on gingival tissues.

T_{24} Explain the procedure for periodontal dressing application.

E_1 State five suggestions for care following dressing placement.

E_2 State the different types of periodontal dressings.

E_3 List the objectives for placing a periodontal dressing.

E_4 Discuss the correct mixing of materials utilized for periodontal pack dressings.

T_{25} Describe post-surgery oral physiotherapy

E_1 State five suggestions for care following dressing placement.

E_2 Explain follow up precautions.

T_{26} Describe tooth sensitivity to thermal changes as a result of periodontal treatment.

E_1 Explain the effect of heat in periodontal tissues.

E_2 Enumerate the precautions to prevent tooth hypersensitivity

E_3 Name two effects of food impaction on periodontal tissues.

VIII. Course Outline and Schedule of Instruction

A. Course Outlines

1. Introduction
    a. Course content and objectives
    b. Methods of evaluation
2. Review of Periodontal Tissues and Nomenclature
    a. Normal Periodontium
    b. The dentogingival junction
3. Etiological Factors
    a. Oral Habits
    b. Soft and Hard deposits
    c. Dental Materials
    d. Occlusal Trauma
    e. Systemic Factors
4. Classification of Periodontal Disease
5. Diagnostic Signs and Symptoms
    a. Radiographic interpretation
6. Gingival Diseases
    a. Gingivitis
    b. Gingival Enlargement
    c. Gingival Recession
7. Root Planning and Gingival Curettage procedures
    a. Healing Process
8. Periodontal Conditions
    a. Periodontitis
    b. Periodontal Pocket

    c. Periodontosis
    d. Pericoronitis

9. Periodontal Surgery
    a. Basic Principles
    b. Gingivectomy and Gingivoplasty
    c. Preparation before surgery
    d. Indications for mucogingival surgery
10. Acute Periodontal Problems
    a. Definition
    b. Management
11. Temporary Stabilization
12. Periodontal Dressings
    a. Types of Periodontal Dressings
    b. Objectives of placing a dressing
13. Post-surgery Oral Physiotherapy
    a. Maintenance care

B. Schedule of Instructional Periods

Period	Hours	Topics
1	6	Introduction and Course Overview, Review of Periodontal Tissues and Nomenclature; Clinical Characteristics of Periodontal Tissues; Etiology of Periodontal Disease
2	3	Quiz. Local etiological factors; Systemic Etiological Factors
3	6	Classification of Periodontal Diseases; Diagnostic signs and symptoms, Radiographic Interpretations; Gingival Diseases; Root planing and curettage procedures; Healing process
4	3	Partial Exam. Periodontal Conditions
5	6	Periodontal Conditions; Periodontal surgery; Gingivectomy and Gingivoplasty film.
6	3	Quiz. Acute Periodontal Problems

Period	Hours	Topic
7	6	Temporary Stabilization; Post surgery oral physiotherapy; Periodontal pack demonstration - Course Overview
8	3	Final Examination

IX. Teaching Methods

Lectures, demonstrations, group discussion

X. Media

. Film, slides, overhead projections

XI. Evaluation

The student will perform to a 75% mastery level. Two quizzes 24 points each, one partial examination, 100 points. One final examination, 200 points. Class participation, 20 points.

XII. Pre-requisite course

Preventive Dentistry II

XIII. Textbook

F.A. Pawlak and P.M. Hoog; Essentials in Periodontics, C.V. Mosby Co., 1976

XIV. References

S. Stone and P.J. Kalis; Periodontics (module 6 of Dental Auxiliary Practice Biological Basis and Clinical Application); lrst edition; Williams and Wilkins Co., 1975, Baltimore

E.M. Wilkins, Clinical Practice of the Dental Hygienist, 4th ed. Lea & Febiger, 1976, Phila.

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HRS.	COURSE	TOPICS PERIOD 1	 PERIOD 2	 PERIOD 3
24	Advanced Preventive Dentistry	Goal Orientation, Intro-clinical tech., Medical-Dental history explorer, probe, mirror	Quiz #1 Oral inspection charting: Extra and intraoral occlusion classification	Quiz #2 Calculus: mode of attachment Instruments: chisel, sickle, hoe
	"	Lab. Practicum Medical-Dental history taking	Lab. Practicum Extra-intraoral exam class. of occlusion	Lab. Practicum Application of scalers manikin
9	Periodontics	Introduction and Course Overview Review of Periodontal Tissues and Nomenclature; Clinical Characteristics of Periodontal Tissues: Etiology of Periodontal Disease	Quiz. Local Etiological Factors; Systemic Etiological Factors	
24	Advanced Preventive Dentistry	Instrument: curet, design, purpose, uses, review root anatomy	Instrumentation: Root Planing and Curettage	Perio charting
	"	Lab. Practicum: application of curet and scalers manikin	Lab. practicum: scalers and curet manikin	Lab. practicum: perio charting
9	Periodontics	Classification of Periodontal Diseases, Diagnostic signs and symptoms; Radiographic interpretation; Gingival diseases; root planing and curettage procedures; Healing Process	Partial Exam - Periodontal Conditions	
24	Advanced Preventive Dentistry	Oral Health Indices Oral Health Program	Diagnostic Aids - Fiber Optics etc., phase microscope demonstration	Lab. Practicum: ultrasonic diagnostic aids
	"	Lab. Practicum: Oral Health Indices scalers	Ultrasonics: Cavitron uses Lab. practicum: cavitron	Instrument sharpening- Lab. practicum: sharpening
9	Periodontics	Periodontal Conditions; Periodontal Surgery Periodontal Surgery (Gingivectomy and Gingivoplasty - film)	Quiz: acute periodontal problems	

HRS.	COURSE	TOPICS		
		PERIOD 1	PERIOD 2	PERIOD 3
24	Advanced Preventive Dentistry	Lab. Practicum: sharpening myofunctional therapy	Lab/clinic: Prophy patient	Practical exam: preliminar exam, oral prophy
	"	Lab/clinic: Prophy patient	Lab/clinic: Prophy patient	Final Exam
9	Periodontics	Temporary Stabilization: post-surgery oral physiotherapy Periodontal Pack Demonstration Course Review	Final Exam	

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: P.R. Experimental Model Dental Auxiliary Training Program

I. Course Number:

II. Title: Advanced Preventive Dentistry

III. Credit Hours: 4

IV. Clock Hours: 96

V. Methodology: Lecture: 24/lab: 72

VI. Course Description:

Course is designed to build upon the concepts and principles that the dental auxiliary has been exposed to previously.

It includes experiences which will expand knowledge and procedures applicable to performing primary and secondary oral health services.

VII. Objectives:

A. General:

Develop skills to prepare students for the performance of clinical procedures such as obtaining and interpreting a medical, dental and personal history, dental charting, classification of occlusion, removing calcarious deposits, root planing and soft tissue curettage, placing periodontal packs, and ultrasonic scaling.

To provide the student with the necessary knowledge and skills for the utilization of diagnostic aids and introduce her to the basic knowledge of myofunctional therapy.

B. Operational:

At the end of this course the student will:

Lecture:

1. obtain and interpret a thorough medical, personal and dental history.
2. state objectives for personal, medical and dental histories and describe how each influence appointment procedures.
3. describe signs and symptoms of specific diseases that may complicate or be complicated by dental procedures.
4. discuss the normal root anatomy and the considerations involved in root scaling and root planing.
5. describe the use of a periodontal probe.
6. classify occlusion correctly utilizing Angle's classification system.
7. describe dental calculus, modes of attachment and distribution.
8. observe and record those areas which appear to deviate from the normal.
9. screen each patient for suspicious lesions by means of direct observation and palpation.
10. identify and describe instruments for oral prophylaxis and the principles for their selection.
11. describe uses and principles of activation of the sickle scaler.
12. describe the curet.
13. relate the concept of instrument design to the utilization of the curet at a particular tooth surface.
14. list instruments utilized for scaling, root planing and soft tissue curettage.
15. describe the correct technique for root planing and curettage.
16. enumerate the uses of the fiber optics as a diagnostic aid.

17. identify on a written exam, the physical characteristics of the phase microscope.
18. demonstrate current knowledge of phase microscopy as a preventive oral health service to a patient in a role playing situation.
19. discuss the cavitron, its uses, indications for use and contra-indications.
20. discuss advantages of keeping scalers and curets sharp at all times.
21. discuss the characteristics of the correct swallow vs. the incorrect swallow.
22. relate the concept of prevention to the rationale for habit therapy.

Laboratory:

1. conduct a soft tissue examination of the face, lips, and oral cavity.
2. correctly chart the oral condition.
3. correctly classify the occlusion of a lab. partner.
4. perform a preliminary extra-intraoral exam of lab. partner by utilizing optimum lighting, effective retraction and digital, bidigital and bimanual palpation.
5. demonstrate the use of scaler on a manikin by utilizing fulcrum and correct working stroke.
6. demonstrate on a manikin the correct technique for root planing and gingival curettage.
7. correctly chart a periodontal condition in a simulated situation to include a plaque index, bleeding point index and a periodontal index.
8. correctly chart a periodontal condition as dictated.

9. demonstrate the use of the fiber optics.
10. demonstrate use of the cavitron on lab. partner in clinic.
11. apply the principles of instrument sharpening in a lab situation.

VIII. Course Outline and Schedule of Instruction

Periods	Hours	Didactic	Laboratory	Hours
I	4	Goal Orientation Introduction to Advanced Clinical Techniques The Dental Hygiene Appointment The Dental Hygienist Dental Hygiene Services 1. medical-dental history taking 2. oral inspection: use of explorers, probe, and mirror	Medical-Dental History Taking on Lab. Partner	3
II	3	Quiz I Oral Inspection Dental Charting: 1. extraoral inspection a. visual b. palpation 2. intraoral inspection a. visual b. palpation c. caries detection d. periodontal disease e. classification of occlusion f. habits Tooth Numbering Systems: 1. continuous numbers 1-32 2. F.D.I. two-digit 3. quadrant numbers 1-8	Dental Charting on Lab. Partner Extra/Intraoral Inspection Practice on Lab. Partner	5
III	2	Quiz 2 Calculus: Mode of Attachment Distribution Instruments: sickle scaler hoe scaler chisel scaler design purpose uses	Practice on Manikin Application of Scalers	6

Periods	Hours	Didactic	Laboratory	Hours
IV	2	Quiz 3 Instruments: Curet design, purpose, uses Review of Root Anatomy	Practice on Manikin Application of Curet and Use of Scalers	6
V	3	Quiz 4 Instrumentation: Root Planing and Soft Tissue Curettage Techniques	Practice on Manikin: Use of Curet	5
VI	3	Quiz 5 Periodontal Charting: Principles of Charting Procedures for Charting Radiographic Exam Sequence Code for Charting	Practicum: Perio Charting with Lab. Partner	5
VII	4	Quiz 6 Oral Health Indices: Plaque Bleeding Point Periodontal Oral Health Program	Practicum: Oral Health Indices Practical Exam: Use of Scalers	3
VIII	4	Quiz 7 Diagnostic Aids: Fiber Optics Uses Radiographs Perio Interpretation Phase Microscope (demonstration) Patient Motivation	Ultrasonics: Cavitron Cavitron Uses Lab. Practicum	3
IX	4	Quiz 8 Lab. Practicum: Ultrasonic (Cavitron) Diagnostic Aids Fiber Optics Phase Microscope Practical Exam on Use of Curets	Instrument Sharpening Sharpening Stones Basic Principles of Sharpening Sharpening Procedures Lab. Practicum: Sharpening	3
X	4	Quiz 9 Myofunctional Therapy Correct Swallow vs. Incorrect Swallow Lab. Practicum: Sharpening	Lab/Clinic Practical Exam Prophylaxis Patient	3

Periods	Hours	Didactic	Laboratory	Hours
XI	4	Quiz 10 Lab/Clinic Prophylaxis Patient	Lab/Clinic Prophylaxis Patient	3
XII	4	Practical Exam: Preliminary Exam Oral Prophylaxis	Final Exam	2

IX. Teaching Methods:

1. Lectures
2. Demonstrations
3. Practice

X. Media:

1. Slides
2. Overhead projector
3. Laboratory Manikin
4. Modules as assigned

XI. Evaluation:

80% minimum mastery level required in didactic and laboratory.

10 - 15 min. quizzes

1 - 2 hours final exam

% Grade on Quiz A	Course Points
93 - 100%	10
85 - 92%	9
80 - 84%	8
00 - 79%	-

% Grade on Quiz B	Course Points
93 - 100%	8
85 - 92%	7
80 - 84%	6
00 - 79%	-

If 80% mastery is not shown on the make-up quiz, a verbal exam will be given with a maximum of 3 assigned points if 80% mastery is shown at that time.

% Grade on Final	Points
93 - 100	20
86 - 92	15
80 - 85	12
00 - 79	--

Make-up opportunity for the final exam will be based on the individual deficiencies demonstrated in the exam and in no case shall a make-up exam be worth more than five points.

XII. Requirements: Laboratory

Four practical exams will be given: (25 pts. ea.)

1. use of scalers
2. use of curets
3. preliminary exam
4. prophylaxis

The exams will be evaluated according to the criteria on the evaluation sheet. Total 100 points.

Course grades will be assigned according to the following course point tallies:

Didactic	Weight	Laboratory	Weight
115-120 points	A 50%	95-100 points	A 50%
106-114 "	B	85-94 "	B
90-105 "	C	75-84 "	C

XIII. Textbook:

Required: Torres & Ehrlich, Modern Dental Assisting, Saunders, 5th ed., 1976

Wilkins, Esther. Clinical Practice of the Dental Hygienist, 3rd. ed., Phila. 1971

ORAL HYGIENE LABORATORY

Practical Quiz Point Distribution

Position:	Points Possible	Points Earned
Patient	2	
Operator	2	
Instrumentation:		
Grasp	2	
Fulcrum	2	
Activation (writs or finger)	2	
Stroke		
Length	2	
Position of blade	5	
Correct instrument tip	2	
Use of mouth mirror		
Grasp	2	
Fulcrum	2	
Correct retraction (with mirror or fingers)	2	
TOTAL	25	

TASK: Preliminary Oral Examination

Pre-Clinical Evaluation Form

Health History				
Extra Oral Examination				
Blood Pressure (+ - 5 mm.)				
Gingival Tissue Exam				
Occlusion				
Probing (+ - 1 mm.)				
Soft Tissue Exam				
Transillumination				
Pit and Fissure Defects				
Missing Teeth				
Restorations				
Radiographic Exam				
Finger Rests and Chair Positions				
Time Used				
Date				

*Mark with check if completed correctly.
Mark with an X if completed incorrectly.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

I. Program: P. R. Experimental Model Dental Auxiliary Training Program

II. Course Title: Sociology

III. Course Number:

IV. Credit Hours: 4

V. Clock Hours: 54

VI. Description:

This course is intended to provide dental auxiliary student with the basic sociological concepts with emphasis in the ecological approach of man. It provides the student an understanding of the interaction between the physical socio-cultural environment with man's own values, beliefs and mores.

VII. Objectives:

A. General

At the completion of the course the dental auxiliary student will:

1. Develop knowledge about bio-social, economic, politics, and cultural factors that affect health in the society in which he or she lives.

2. Develop awareness of the influences of social institutions in the process of value transmission especially those values and beliefs concerning health.

3. Clarify their values with respect to their tolerance and understanding of social problems.

4. Identify current social changes in the modern society and its implications to public health.

B. Operational

T_1 Explain the interrelation of the social, cultural, ideological and economic systems in the preservation of the individual, family and community health.

E_1 Explain system as a concept.

E_2 Define social structure.

E_3 Describe the hospital as a social system.

E_4 Define different systems of social organization; egalitarian and rank societies.

E_5 Identify societies with different types of social organization.

E_6 Identify the basic principles of social organization.

E_7 Explain the concept of social stratification.

E_8 Explain the different indicators that measure social classes and their importance to health.

E_9 Explain the relation between different social groups and their relation to health behavior.

T_2 Explain positions and roles and conflicting situations between the two.

E_1 Relate positions and roles to dental health services delivery.

T_3 Recognize that the family constitutes the primary biopsico-social unit.

E_1 Discuss the family as a social group.

E_2 Explain three functions of the family in society.

E_3 Analyze the different stages of family grouth.

E_4 Describe the relationship of the different stages of family grouth and development of its members.

T_4 Analyze the elements affecting cultural evaluation.

- E_1 Define culture.
- E_2 Explain the different characteristics and functions of culture.
- E_3 Analyze the concepts impending the understanding among cultures.
- E_4 Identify various standards and ways of social control.
- E_5 Appreciate and respect Puerto Rican cultural manifestations evidenced by students reactions, manifestations and self conduct.

T_5 Analyze socialization agents and its relation to health behavior.

- E_1 Define socialization.
- E_2 Summarize the socialization agents.
- E_3 Discuss the influences of learning upon behavior.
- E_4 Relate different types of socialization to health behavior.

T_6 Explain the process of values, beliefs, and more formation.

- E_1 Define the concepts of values, beliefs and mores.
- E_2 Analyze the relation between these concepts.
- E_3 Identify some primary and secondary values in Puerto Rican culture.
- E_4 Explain the differences in secondary values of social groups.
- E_5 Discuss some strategies to measure values.
- E_6 Summarize the value clarification process.
- E_7 Reflect respect, appreciation and recognition of Puerto Rican culture evidence by a value or value system related to respect, appreciation and recognition of Puerto Rican culture.

T_7 Discuss different economic systems.

- E_1 Theorize about the different economic systems.

E_2 Explain the relation between economy, social organization and health services delivery.

T_8 Evaluate the different change mechanism: culturization, diffusion, invention and revolution.

E_1 Analyze and summarize the different change parameters, analysis level, time, ethic and the magnitude of change.

E_2 Discuss the interpretation of change parameters to health behavior.

T_9 Recognize community as a social entity with its own needs, problems and responsibilities.

E_1 Explain in his own words community as a concept.

E_2 Select and discuss the five basic elements in a community.

E_3 Analyze community as a social entity with its own needs, problems and responsibilities.

T_{10} Analyze the interaction of groups in a health organization.

E_1 Explain the concept of interaction.

E_2 Describe man to man and man to group interaction.

E_3 Explain through an example the interaction of different groups in a society.

T_{11} Evaluate the basic processess in communication. .

E_1 Explain the relation between verbal and non-verbal communication and health behavior.

E_2 Value the importance of recognizing the processes that hinder communication in promoting changes in oral hygiene habits.

E_3 Explain the levels of communication among health professionals.

T_{12} Discuss how motivations influence health professionals as well as health services consumers.

E_1 Define the concept of motivation.

E_2 Explain the different factors affecting motivation.

T_{13} Evaluate the different factors that influence perception.

E_1 Analyze concept of perception.

E_2 State the different factors that influence perception.

E_3 Explain how perceptions of different groups influence health behavior.

T_{14} Evaluate the tendencies affecting population. Describe from a worldwide, regional and local point of view the tendencies affecting population as to:

a. volume
b. composition
c. distribution

E_1 Identify demographic factors determining population changes as to:

a. natality and fertility
b. mortality
c. migration

VIII. Possible teaching strategies

1. Programmed lectures
2. Readings
3. Field trips
4. Document analysis
5. Pictures
6. Films
7. Guest interview

IX. Evaluation

Pre Test --Diagnostic

Periodical Quizzes

Post Test --Performance

X. Schedule of Instructional Periods.

Period	Hours	Topic
I	2	Course Objectives Evaluation Procedures Pre Test
II	2.5	Social System Social Structure Systems of Social organization Quiz
III	2	Principles of Social Organization Concept of Social Stratification
IV	2.5	Indicators that measure social classes Relation between social groups
V	2	Family, Religion Quiz
VI	2.5	Positions and roles
VII	2	Study of culture Nature of culture
VIII	2.5	Problems posed by cultural differences Quiz
IX	2	Society culture and individual socialization
X	2.5	Concepts of Values Value clarification Quiz
XI	2	Economic Systems
XII	2.5	Social Change Quiz

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

I. Course: Dental Health Education

II. Number

III. Clock Hours: 48

IV. Type of course: didactic with field practice experience

V. Course Description:

This course is designed to develop in the dental auxiliary student the appropriate knowledge, skills, and attitudes needed for an effective participation in planning developing and evaluating oral health educational activities. It emphasizes concepts, practices, and trends in health education geared to foster the development of positive attitudes toward oral health. Practical experiences will be provided in developing educational activities in a community setting: classroom, and family clinic.

VI. Objectives:

A. General

At the completion of the course the student will be able to:

1. analyze dental health needs and attitudes toward oral hygiene care of individuals.
2. participate effectively in the planning, development, and evaluation of oral health educational programs.
3. establish and maintain rapport with local professional associations, educational institutions, and related allied health personnel.
4. express concern for individual's well being and show interest in them as individuals.

B. Operational

values, attitudes and behavior

T 1. Given a real or simulated situation, the students will be able to clarify their values, attitudes, and behavior with respect to oral health care.

E 1. define values, attitudes and behavior

E 2. evaluate attitudes and values toward oral health care.

E 3. state how conflicts between the internal and external forces with which the individual must cope, affect his health behavior.

E 4. discuss the role of social pressure on individual values, attitudes, and behavior.

E 5. summarize the principal assumption frequently made, concerning dental health care.

E 6. analyze rational and irrational attitudes toward dental health care.

E 7. discuss elements which contribute to these irrational attitudes.

Process of change

T 2. Analyze the role of the dental auxiliary as a changing agent.

E 1. recognize ideological barriers against changing dental health habits.

E 2. define the process of change.

E 3. list the factors favoring change.

E 4. list the ways of inducing change.

E 5. discuss education as a process of change.

E 6. discuss health education as a process of change.

E 7. discuss three factors affecting change in health behavior.

E 8. accept his or her role as an agent of change.

Educational cess

T 3. Analyze and apply the steps in the educational process.

E 1. list the steps in the process.

E 2. state the importance of recognizing and expressing needs.

E 3. list the types of motivation.

E 4. explain the importance of setting goals.

E 5. list the types and characteristics of goals.

E 6. state the importance of reinforcement.

E 7. state the importance of evaluation.

Communication T 4. Discuss communication as a factor influencing the learning process.

E 1. state and discuss the basic elements of the communication process.

E 2. explain the barriers of the communication process.

Perception T 5. Discuss perception as a factor influencing the learning process.

E 1. analyze the perception process.

E 2. summarize the factors that affects perception.

Motivation T 6. Analyze motivation as a factor influencing the learning process.

E 1. discuss Maslow's theory on motivation.

E 2. identify and explain five levels of needs in Maslow's model.

E 3. describe how lack of satisfaction of safety needs interfere with the individual's education.

E 4. list and discuss actual concerns related to security needs in Puerto Rican people.

E 5. diagnose principal elements of dental patient motivation.

E 6. value the importance of using patients frame of reference in patient motivation.

E 7. discuss possible problems arousing in the motivation of a patient who is expressing feelings of fear, anxiety, and pain.

E 8. Explain how to use insatisfaction of social and esteem levels as tools in patient motivation.

E 9. discuss how the finding of the Snyder test could be used as a tool for patient motivation.

E 10. Explain how the phase microscope could be used in patient motivation.

Socio-economical factors

T 7. Analyze how the socioeconomic factors influence the learning process.

E 1. the student will reflect respect, appreciation and recognition of cultural values of patients evidenced by respect and appreciation of individuals.

E 2. formulate hypothesis about possible motivation techniques for inducing patients to adopt proper oral hygiene care.

E 3. recognize the importance of satisfying social needs in interpersonal situations.

Instructional design

T 8. Evaluate basic assumptions about instructional design.

E 1. discuss five principles derived from the learning research, relevant to instructional design of a dental educational program.

E 2. apply these principles to a plaque control educational program.

E 3. analyze three kinds of learning situation and state examples of each.

T 9. Analyze the conditions applicable for changing attitudes.

E 1. state procedures for attitudes measurements.

E 2. select and discuss methods for developing and changing attitudes toward dental health.

T 10. Explain the steps for teaching motor skills.

E 1. name and discuss the characteristics of motor skills.

E 2. give examples of motor skills emphasized in oral health education.

T 11. Identify target group of the community population.

E 1. explain the use of questionnaires, interviews, and record analysis for determining patients educational and clinical needs.

E 2. state the criteria used for identifying target group.

Application of Instructional Design

T 12. Develop a plan for a learning activity consistent with clients learning style, attitudes, and previous experience.

E 1. value the importance of developing learning objectives consistent with consumer's needs.

E 2. explain the taxonomy of behavioral objectives.

E 3. state examples of learning objectives developed for a target group selected.

E 4. explain the procedures to provide individuals involvement for oral health education.

E 5. evaluate and select appropriate methods and activities to achieve dental health education goals.

E 6. give examples of resources related to educational goals.

E 7. explain evaluation procedures for assessing behavioral changes in an oral health educational program.

VII. Schedule of Instructional Periods

Period	Hours	Topic
I	3	Class introduction Instructional Objectives Evaluation Procedures Pre-test Values, attitudes and behavior toward dental health
II	3	Role of a Dental Auxiliary as a changing agent Education as a process of change Quiz #1
III	3	Education as a process of change
IV	3	Factors affecting the learning process-Perception

Period	Hours	Topic
V	3	Factors affecting the learning process - Communication Quiz #2
VI	3	Factors affecting the learning process - Motivation Quiz #3
VII	3	Factors affecting the learning process-Sociocultural Quiz #4
VIII	3	Instructional design
IX	3	Instructional design
X	3	Techniques for attitudes modifications Quiz #5
XI	3	Teaching motor skills
XII	3	Strategies for identifying target groups Quiz #6
XIII	3	Planning of an educational activity
XIV	3	Educational strategies and evaluation techniques
XV	3	Group reports
XVI	3	Post-test

VIII. Methodology

1. Programmed lectures
2. Guest interviews
3. Roll playing
4. Case method
5. Trigger films
6. Seminar
7. Conference

IX. Design of Evaluation of the Course: Dental Health Education

A. General

1. Written exams
    a. Pre-test
    b. Quizzes after completing each topic
    c. Post-test

2. Oral Reports
3. Performance observation
4. Interviews
5. Peer evaluation

B. Instrument for Written Evaluation of Terminal Objectives

There will be six multiple choice achievement quizzes for the evaluation of eleven terminal objectives of the course as follows:

1. Quiz #1 will consist of twenty five multiple choice questions covering terminal objectives number one (seven enabling objectives and terminal objective number two, eight enabling objectives).

   T 1. evidence of analytical thinking reactions judgment and proper alternatives and solutions presented by students.

   T 2. evidence of knowledge comprehension and judgment of the role of the dental auxiliary as a changing agent.

2. Quiz #2 will consist of twenty five multiple choice questions covering terminal objectives, number three (seven enabling objectives) terminal objective number four, (two enabling objectives) and terminal objective number five, (two enabling objectives).

   T 3. evidence of knowledge comprehension, application and analytical thinking concerning education as a process of change and as primary preventive measure.

   T 4. and T 5. evidence of analysis and application of communication and perception as factors influencing the learning process.

3. Quiz #3 will consist of fifteen multiple choice questions covering terminal objective number six, ten enabling objectives.

   T 6. evidence of knowledge application and analysis of motivational theories as applied to the learning process.

4. Quiz #4 will consist of ten multiple choice questions covering terminal objective number seven, (three enabling objectives). Evidence of comprehension and analysis of socioeconomic factors that influence the learning process, assumptions frequently made about dental health care and valuing attitudes reflected by these assumptions.

5. Quiz #5 will consist of fifteen multiple choice questions covering terminal objectives number eight, (three enabling objectives), terminal objective number nine (two enabling objectives and terminal objectives number ten (two enabling objectives).

   T 7. evidence of knowledge, analysis and application of instructional design, used as a tool for developing and changing attitudes, and teaching motor skills.

6. Quiz #6 will consist of ten multiple choice questions covering terminal objective number eleven, (two enabling objectives).

   T 8. evidence of knowledge and application methods and procedures for identifying community target groups.

X. References

A. Mimeographed

1. Aspectos Generales-Planificación de los Aspectos Educativos en Programas de Salud. Mimeografiado - Escuela de Salud Pública, Recinto de Ciencias Médicas.

2. Affecting Health Behavior. Gofrey M. Hochbaum, Ph.D.

3. A View of Education

4. Comunicación, su Rol en la Salud Oral

5. El Trabajador de Salud Pública como un Agente de Cambio Sociocultural - Cora de Bois

6. La Motivación y el Cambio

7. Las barreras ideológicas que se levantan contra la enseñanza eficaz que imparten los trabajadores de Salud Pública. Mimeografiado, Escuela de Salud Pública, Recinto de Ciencias Médicas

8. Methods for Developing Attitudes in the Classroom
9. Motivaciones Inconscientes y Agendas Encubiertas
10. Principios a Considerarse para la Presentación de Informes Grupales
11. Sobre las Redes de Comunicación
12. Stating Objectives in Terms of Student Behavior.

B. Books

1. Berlo, D., You are in the People Business. (mimeographed)
2. Cartwright, D., Achieving Change in People. Humans Relations, Vol. II, #4, 1951.
3. Di Orio, L., Madsen, K., Educating the Patient in the Prevention of Dental Disease. March Publishing Co., Chicago, Illinois.
4. Expanded Functions and Behavior Modification. Ulla J. Alaridge, Ph.D., M.D., Dent. Hyg., Vol. 48, Nov., Dec., 1974, pp. 52-77
5. Factors Relevant to Health Education. Alberta Merrit, Ph.D., Hygienist Ass., July-August, 1972.
6. Katz, McDonald, Stookey. Preventive Dentistry in Action. D.C.D. Publishing, Upper Montclair, NY 1974.
7. Motivational Study of Dental Care Bureau of Economic Research, J.A.D.A., 56 - April, May, June 1958
8. Parker, M., Patient Motivation - A Systematic Approach. A.S.P.D. Nov., Dec., 1972, pp. 45-46
9. Podshadley, A. The Essential Elements in Educating Patients. J.P.H.D. Vol. 28, #4, 1968
10. U.S.P.H. Department of Health, Education and Welfare. Chairside Psychology in Patient Education. Weiss, Robert L., Swearingen, Robert V. U.S. Government Printing Office, 1969.

PLAN FOR PRACTICAL EXPERIENCE
IN DENTAL HEALTH EDUCATION
AND PUBLIC HEALTH PROCEDURES

Rationale:

Preparation of health personnel is becoming more challenging every day as medicine advances in the discovery of new knowledge and as socioeconomical and educational level of the community increases.

The graduate in the health services field must be a continuous learner and must also be a person very sensitive to the community needs. Theoretical concepts and knowledge will not be enough in serving a dynamic community nowadays.

Field experiences will help the future dental auxiliary in both integrating and relating theory into practice and in knowing and understanding the community so as to serve it in a more effective way.

Field experience will enable the future graduate to practice what has been learned in the classroom and to explore new learning situations.

Objectives:

1. Relate students with social behavior patterns of patients
2. Appreciate cultural characteristics of people
3. Establish rapport with health team members and function as a responsible participant of this team.
4. Provide educational services to the community outside the conventional environment in which a dental auxiliary more commonly finds herself.
5. Provide students practical learning experiences in selecting target groups and delivering dental health education.
6. Relate theory to practice
7. Explore new learning situations which stimulate students to continue learning.

Procedure:

Field experience will be carefully planned. Students will visit three different clinical settings that is: family dental programs in Caguas, extramural clinics at Vista Hermosa, Río Piedras and School dental clinics at Head Start Projects.

For each activity the students will have specific plans which will be discussed with the students before going to the field.

A seminar will take place after each practical experience. The purpose of this seminar is to integrate concepts, to share experiences and to encourage students to read and analyze literature related to the topic.

The students will be assigned to a specific neighborhood through all the experience so as to provide enough time to get to know the people and the community and to put into practice the theoretical knowledge.

Staff members (dental health education and public health instructor) will coordinate practical experience.

Through conferences with the students and the program directors the coordinator will be able to determine administrative and physical facilities, time best suited for the program that be amenable to both institutions and dental auxiliary student, and personnel to give support to students.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Puerto Rico Experimental Model Dental Auxiliary Training Program

I. Title: Anatomy and Physiology

II. Number:

III. Credit Hours: 3

IV. Clock Hours: 36

V. Media: Projected material: films, radiographs, models

VI. Course Description

The course presents core concepts in anatomy and physiology and is intended to provide dental auxiliaries with the knowledge of normal human anatomy and how the body functions in normal situations for recognizing the manifestation of disease and anatomic anomalies.

VII. Objectives

A. General

1. Develop knowledge of the basic concepts of human body structure and function.

2. Develop basic concepts about normal human anatomy and physiology for recognizing the manifestations of disease and anatomical anomalies.

B. Operational

T 1. Discuss the anatomical terminology: directions, planes and cavities.

E 1. describe the anatomic positions

E 2. name 10 terms of position and direction

E 3. describe the three imaginary planes of the body

E 4. state two body cavities

E 5. differentiate between thoracic cavity and abdominal pelvic cavity

E 6. locate nine abdominal regions

T 2. Describe the life supporting physiological processes that take place within cells

E 1. describe homeostasis

E 2. name the passive modes of transport

E 3. define osmosis

E 4. define diffusion process

E 5. state the difference between osmosis and diffusion

E 6. relate the filtration process to the fluid pressure

E 7. describe the basic mechanism of active transport

E 8. describe the importance of water balance in the homeostatic process

E 9. relate electrolite balance to osmotic pressure

E 10. define dehydration

E 11. state four principal causes of edema

T 3. Explain the process of bone formation and disorders of bone development

E 1. state three regulatory substances needed for normal bone deposition

E 2. name five disorders of bone development

T 4. Describe the human skeleton and vertebral column

E 1. state the morphologic description of the skeleton

E 2. name the divisions of the axial skeleton

E 3. identify the four curves of the vertebral column

E 4. name five principal features of the vertebrae

E 5. state the distinguishing features of thoracic vertebrae

T 5. Describe the bony structure of the thorax

E 1. locate the four principal groups of thorax bones

E 2. identify the sternum process

E 3. name the sternum articulations

E 4. identify the parts of a rib

T 6. Discuss the pectoral girdle

E 1. name the bones forming the pectoral girdle

E 2. state the function of the humerus and the scapula

T 7. Explain the functions of the pelvic girdle and the lower extremity

E 1. name the bones of the pelvic girdle

E 2. describe the function of the hip bones

E 3. describe the anterior aspect of the femur

E 4. state the function of the femur

E 5. locate the fibula

T 8. Evaluate the diseases and injuries affecting the skeletal system

E 1. name four diseases that may affect the skeletal system

E 2. indicate four types of fractures

E 3. describe two phases of treatment

T 9. Classify joints according to the degree of movement and structural characteristics

E 1. list four types of joints

E 2. define synarthrosis

E 3. list two examples of synarthrosis

E 4. compare synhodiosis and synarthrosis

E 5. state the difference between amphiarthrosis and diarthrosis

T 10. Discuss the different types of muscles relating to structure and function

E 1. Identify the different types of muscles

E 2. Differentiate between smooth, skeletal and cardiac muscle relating to function

T 11. Explain properties of muscle related to contraction

E 1. discuss the following phenomena of muscle contraction heat rigor, tetany clonus, spasm and fatigue

E 2. Explain the conduction of a contractile impulse at the neuromuscular union

T 12. Discuss criteria used for naming muscle groups

E 1. state examples of each criteria used for naming muscle groups

T 13. Explain the diseases of the joints

E 1. list four conditions associated to inflammation of the joint

E 2. define bunion

E 3. state two causes of sprain

T 14. Evaluate anatomy functions and disorders of the voluntary nervous system

E 1. identify the three main types of neurous

E 2. discuss the physiology of nervous tissue in terms of transmission of the nerve impulse

E 3. describe the anatomy and functions of the spinal cord and the nerves arising from it.

E 4. summarize most important disorders involving the cranial nerves

T 15. Describe the involuntary nervous system

E 1. identify the structure of the autonomic nervous system

E 2. explain the mechanism of central control of the autonomic nervous system

E 3. discuss the sympathetic syndrome

T 16. Describe general anatomical and physiological conditions which might affect normal breathing

E 1. describe the mechanism of breathing

E 2. explain the concept of lung volume

E 3. discuss the neural control of breathing

E 4. explain the chemical regulation of breathing

E 5. state and discuss the respiratory function of the blood

E 6. state the difference between internal and external respiration

E 7. point out and discuss conditions that may affect normal breathing

T 17. Discuss the digestive system structure and function

E 1. identify digestive organs

E 2. explain the digestive process

E 3. discuss the hormonal control of digestion

E 4. describe and explain the nervous control of the digestive tract

T 18. Describe the circulatory system

E 1. identify anatomical structures of the heart

E 2. explain the process of general circulation

E 3. identify the principal systemic arteries and veins

E 4. list the most common abnormal conditions related to blood circulation

T 19. Describe the structures, functions, and most common abnormal conditions affecting the excretory system

E 1. identify the anatomical structure of the excretory system

E 2. name the functions of the kidney

E 3. discuss the process of urine formation

E 4. recognize the clinical considerations concerning the excretory system

T 20. Describe the structure and functions of the reproductive system

E 1. identify the male and female organs

E 2. discuss the process of sperm and ovum formation

E 3. list and explain the most common disorders of the female and male reproductive system

VIII. Evaluation - minimum mastery level of 80% is required

1. Pre test- Diagnostic
2. Two partial examinations including two thirds of the course
3. Post test at the end of the course

IX. Schedule of Instructional Periods

Period	Hours	Topic
I	1.5	Course Objectives, Evaluation procedures Pre Test
II	1.5	Anatomical Terminology
III	1.5	Supporting physiological processes Quiz
IV	1.5	Supporting physiological processes
V	1.5	Skeletal System

Period	Hours	Topic
VI	1.5	Skeletal System Quiz
VII	1.5	Muscular System Quiz
VIII	1.5	Nervous System
IX	1.5	Nervous System Quiz
X	1.5	First Partial Exam
XI	1.5	Remedial Session
XII	1.5	Respiratory System
XIII	1.5	Respiratory System
XIV	1.5	Respiratory System Quiz
XV	1.5	Digestive System
XVI	1.5	Digestive System Quiz
XVII	1.5	Circulatory System
XVIII	1.5	Circulatory System Quiz
XIX	1.5	Excretory System
XX	1.5	Excretory System Quiz
XXI	1.5	Reproductive System
XXII	1.5	Reproductive System Quiz
XXIII	1.5	Remediative Session
XXIV	1.5	Post Test

X. Pre-requisite Course:

Oral Histology and Embryology

XI. Textbooks

Paul D. Anderson- Clinical Anatomy and Physiology of Allied Health Sciences, Saunders 1976

XII. References

1. Catherine Parker Anthony - Textbook for Anatomy and Physiology
2. Paul D. Anderson - Study Guide: Clinical Anatomy and Physiology of Allied Health Sciences, Saunders 1976

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

I. Title: Pharmacology

II. Course Number:

III. Credit Hours: 3

IV. Clock Hours: 36

V. Methodology: Lectures
Demonstrations
Group discussion
Guest interview

VI. Course Description:

This course will introduce students to terminology, pharmacological principles of drug action and the therapeutic and toxicologic effects of clinically important drugs in medical and dental practice.

VII. General Objectives:

At the completion of the course the dental auxiliary trainee will evaluate the basic concepts in classification, methods of administration, uses, effects, and damages of drugs commonly used in dentistry.

The student will develop knowledge of procedures used to apply local anesthetics for infiltration and mandibular block.

Objectives

T 1. Explain classic concepts in the nomenclature and sources of therapeutic agents.

- E 1. Define drug
- E 2. State four sources of drugs
- E 3. Name five divisions included in pharmacology

E 4. Define materia medica.

E 5. Relate pharmacodynamics to therapeutics.

E 6. Identify 3 elements included in the study of toxicology.

T 2. Analyze drugs classification considering type of action

E 1. Define the organotropic concept.

E 2. Name two types of organotropic drugs.

E 3. State an example of each type.

E 4. Differentiate between stimulant and depressant effect.

E 5. Discuss the precautions to be taken by the patient who is receiving depressant drugs.

E 6. Name two drugs that can cause an increase, decrease or cessation of cellular activity.

E 7. Describe the effect of anti infective drugs.

E 8. Identify the sources of replacement drugs.

E 9. Name two examples of non-specific drugs.

T 3. Explain the routes of administration of drugs

E 1. List four routes of drug administration

E 2. Compare advantages and disadvantages of oral administration and intravenous administration of drugs.

T 4. Analyze the process of drug absorption

E 1. Name three factors affecting rate of drug absorption

E 2. Relate parenteral drug administration and rate of drug absorption

E 3. Explain the importance of controlling the factors that influence the rapidity and degree of drug absorption.

T 5. Explain the factors affecting drug dosage.

E 1. Name four factors affecting drug dosage.

E 2. List two methods for dosage calculation.

E 3. Calculate a child's dose of a drug.

E 4. State why Young's rule would be a less accurate measure of a dosage needed by a child.

T 6. Explain drug elimination process.

E 1. List sites of drug elimination.

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E 2. Describe two major mechanisms involved in the renal handling of drugs.

T 7. Evaluate the use of sedatives and hypnotics in dental treatment.

E 1. Define sedation and hypnosis.

E 2. Relate sedatives to hypnotics.

E 3. Name two categories of sedative-hypnotic drugs.

E 4. State the importance of barbiturates in dental practice.

E 5. Explain why barbiturates should not be administered sub-cutaneously.

E 6. Name the principal adverse potentialities of sedatives related to habit forming and liver damage.

E 7. Describe three factors that influence the sedative effect obtained by barbiturates.

E 8. Identify the principal effects of barbiturates on the central nervous system.

E 9. State the reason why barbiturates should not be prescribed for patients in pain unless an analgesic is also prescribed.

E 10. Interpret four precautions and contraindications related to the use of barbiturates.

E 11. Difference between barbiturate and non-barbiturate sedative hypnotics.

T 8. Explain the special considerations that should always be kept in mind relative to the use of sedative hypnotic drugs.

E 1. State four precautions in the selection of the sedative hypnotic drug.

E 2. Discuss the importance of patient education related to use of alcohol while using barbiturates.

E 3. List the advantages and disadvantages of using chloral hydrate as a sedative hypnotic drug in dental treatment.

E 4. Name indications and contraindications for the use of chloral hydrate.

E 5. Discuss the importance of taking a recent detailed medical history before instituting drug therapy.

E 6. State why a nursing mother must be careful about the drugs she takes.

T 9. Analyze the use of narcotics in dental treatment.

E 1. State classification of narcotics.

E 2. Describe therapeutic and adverse effects of narcotics in the respiratory center.

E 3. Describe the side effects of using narcotics.

E 4. State the effects of narcotics in pregnant women.

E 5. State precautions that should be taken when releasing pre-medicated ambulatory patients after root planing and gingival curettage procedures.

T 10. Explain pharmacologic actions of histamines

E 1. Define histamine

E 2. State effect of histamine on arterioles, venules and capillaries.

E 3. Relate vasodilation and increased capillary permeability to cardiovascular shock.

E 4. Identify effect of histamine on non-vascular smooth muscle.

E 5. Name 2 skin reactions of histamines when introduced in superficial layers of skin.

T 11. Evaluate clinical manifestations of allergic reactions.

E 1. List the clinical manifestations of allergic reaction.

E 2. Recognize signs and symptoms of allergic reaction.

E 3. List drugs used in the treatment of allergic reactions in the dental practice.

T 12. Describe signs, symptoms and treatment for anaphylactic shock reaction.

E 1. List symptoms of anaphylactic shock reaction.

E 2. Name in order the signs of anaphylactic shock reactions.

E 3. Name the drugs used for treatment of anaphylactic shock reaction.

T 13. Describe pharmacological actions and therapeutic uses of antihistamines.

E 1. Name two groups of antihistamine drugs according to its effect.

E 2. Explain the use of antihistamines in preventing histamine induced edema.

E 3. State anti-histamines effect as local anesthetics.

E 4. Name five side effects of antihistamines.

E 5. List therapeutic uses of antihistamines in medical emergencies.

Hormones

T 14. Evaluate the effect of hormones in relation to the patients' general health.

E 1. Define hormone

E 2. Name nine types of hormonal tissues

E 3. State periods in the life cycle of the human in which hormones excercise their greatest effect in oral structure.

E 4. Name the principal pituitary hormone in clinical use.

E 5. Name the diseases treated by adrenocortical steroid.

E 6. State possible drug reactions of a patient treated by adreno-cortical steroid.

E 7. Name five groups of steroids.

E 8. Differentiate between estrogens, androgens, and progesterone.

E 9. State clinical use of steroids.

E 10. State possible drug reactions of a patient treated by adreno-cortical steroid when he is put under stress.

E 11. Name the essential activity of thyroxine and its analogs.

E 12. Name the primary activity of parathyroid hormone.

E 13. Give an example of a metabolic disorder arising from a hormonal deficiency.

E 14. State the causes of insulin shock and diabetic coma.

E 15. Describe procedures for treatment of a patient with insulin shock and diabetic coma.

Cardiovascular Drugs

T 15. Describe uses and effects of antihypertensives and how they can affect dental treatment.

E 1. Name cardiovascular drugs.

E 2. State three reasons for the use of antihypertensives.

E 3. Explain the two effects of antihypertensives in sympathetic nervous system and blood volume.

Diuretics

T 16. Explain use and functions of diuretics and antianginal agents.

E 1. Describe how diuretics reduce extracellular fluid.

E 2. Name four conditions treated with diuretics.

E 3. Describe symptoms of angina.

Antianginal Agents

E 4. State the emergency treatment to be performed in angina pectoris.

T 17. Explain usefulness of anticoagulants and precautions that should be observed for dental treatment.

E 1. State benefit of anticoagulant therapy.

E 2. Explain results of large doses of anticoagulants in dental treatment.

E 3. State two examples of anticoagulant drugs.

E 4. State dental precautions to be taken with a patient receiving anticoagulant therapy before an oral prophylaxis is performed.

Drug Prescription

T 18. Analyze components of a prescription

E 1. Define the concept "therapeutic dosage" of a drug.

E 2. State six considerations in administering drugs.

E 3. Explain five factors affecting drug dosage.

E 4. Recognize the following common abbreviations for prescription writing: q̲ id., bid. p.r.m., t.i.d., a.c., p.c., stat., caps., c̄, ss, tab., p.o., disp.

T 19. Describe the process of infection.

E 1. Define infection.

E 2. Name three factors that determine the likelihood of a microorganism causing an infection.

E 3. Name two types of microorganisms that cause most dental infections.

T 20. Explain prophylactic indications of antibiotics.

E 1. Explain the use of antibiotics when patients suffer rheumatic fever and/or heart disease before and after they undergo oral hygiene treatmen

E 2. Explain the importance of antibiotic sensitivity tests.

E 3. Name the five most common antibiotics used in dental practice.

T 21. Explain the importance of early detection of medical emergencies in dental hygiene practice.

E 1. Identify goals of emergency treatment in dental office.

E 2. Name three emergency situations in dental practice.

E 3. State the role of dental auxiliary in the administration of drugs during emergency situations.

E 4. State the treatment for syncope.

T 22. Explain effect and use of hemostatic drugs.

E 1. Define hemostasis.

E 2. State effect of hemostatics in blood coagulation.

E 3. Name three examples of hemostatic drugs.

T 23. Analyze clinical procedures for the control of pain and fear in the dental patient.

E 1. State goal of physical evaluation.

E 2. Describe common anxieties of dental patients.

E 3. State procedures for reducing anxiety in dental patients.

E 4. List and explain seven purposes of premedication.

T 24. Explain the uses of the most common over the counter drugs

E 1. List the most common analgesic drugs.

E 2. Describe the uses of Valium and Librium

E 3. Know the most common antibiotics prescribed by dentists. (Refer to Micro/Oral Path. I covered in the uses of the PDR in class discussion and written reports)

T 25. Explain the treatment of choice for patients suffering herpes labialis, moniliasis and labial ulcers

E 1. State the drug of choice for the treatment of Herpes Labialis

E 2. List the treatment for a patient presenting a case of moniliasis

E 3. Explain the use of a lubricating gel in cases of labial ulcers.

VIII. Course Outline

1. Introduction to Pharmacology
    a. Nomenclature
        1) drug
        2) divisions
    b. General Principles
        1) classification
        2) routes of administration
        3) absorption
        4) dosage
        5) elimination
    c. Prescription Writing
2. Drug Groups and General Considerations
    a. Sedatives
    b. Hypnotics
    c. Narcotic Analgesics
    d. Histamines
    e. Hormones
    f. Antihypertensives
    g. Antianginal
    h. Anticoagulants
    i. Antibiotics
    j. Hemostatic drugs
    k. Over the counter drugs
3. Medical Emergencies

IX. Schedule of Instructional Periods

Period	Hours	Title
1	1 1/2	Introduction to Pharmacology Nomenclature and Sources of Therapeutic Agents
2	1 1/2	Quiz Drug Classification, Routes of Drug Administration
3	1 1/2	Quiz Drug Absorption; Drug Dosage
4	1 1/2	Quiz Drug Elimination, Sedatives and Hypnotics
5	1 1/2	Partial Examination
6 & 7	3	Narcotic Analgesics; Histamines
8	1 1/2	Quiz Allergic Reactions; Anaphylactic Shock
9 & 10	3	Quiz Antihistamines; Hormones
11 & 12	3	Quiz Antihypertensives; Diuretics and Antianginal Agents
13	1 1/2	Anticoagulants
14	1 1/2	Partial Examination
15	1 1/2	Prescription Writing; Process of Infection
16 & 17	3	Quiz Antibiotics
18 & 19	3	Quiz Medical Emergencies
20	1 1/2	Quiz Hemostatic Drugs
21	1 1/2	Quiz Pain Control
22	1 1/2	Over the Counter Drugs
23	1 1/2	Review
24	1 1/2	Final Examination

XI. Media

1. Illustrations and Visual Aids
2. Reading Material
3. Video-casettes

XII. Evaluation

Ten quizzes (100 points), two partial examinations (200 points) and final examination (200 points)

XIII. Requisite Course

Completion of Level I

XIV. References

1. Jorgensen, N.B., Hayden, J., Premedication, Local and General Anesthesia, Lea & Febiger, 1965
2. Holroyd, S.V., Clinical Pharmacology in Dental Practice, The C. V. Mosby Co., 1974
3. Dunn, M.J., Booth, D.F., Clancy, M., Pharmacology/Pain Control/Sterile Technique/Oral Surgery, The Williams & Wilkins Co., 1975
4. Goth A., Medical Pharmacology, The C.V. Mosby Co., Second Edition, 1964
5. Park U.R., Ashman, J.R., Shelly, G.J. A Textbook for Dental Assistants, W.B. Saunders Co. Second Edition

Handouts

1. Values Classification and Role Playing in Dental Hygiene Education, A.P. Shephrin, Educational Directions, Volume 2, No. 1
2. Dental Considerations for Treatment of the Alcohol Consuming Patient, Dennis W. Symothis, DMD, JADA, Volume 95, September 1977
3. Prevention of bacterial endocarditis, A Committee Report of the American Heart Association., JADA, Volume 95, September 1977
4. Iontophoresis for Surface Local Anesthesia, Louis P. Gingocosa, D.D.S., Ph. D., JADA

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

I. Title Course: **General Organic and Inorganic Chemistry**

II. Course Number: ADHP 104a

III. Credit Hours: 3

IV. Clock Hours: 36

V. Methodology: Lecture

VI. Description:

This course presents basic concepts of modern theoretical and descriptive chemistry. It consists of two units; general inorganic and organic chemistry. There are no laboratory periods as requirements.

VII. Objectives:

A. General

Provide the dental auxiliary student with a general knowledge of inorganic and organic chemistry as to theory and terminology.

B. Operational

Terminal Objectives

T_1 Explain the units of measurement.

T_2 Explain the composition of matter.

T_3 Analyze chemical bondings.

T_4 Explain the different type of chemical equations.

T_5 Discuss the factors affecting reaction rates.

T_6 Analyze Boyle's, Charle's, and Dalton's gas laws.

T_7 Discuss oxidation - reduction process.

T_8 Explain composition of acid, bases, salts and electrolytes as related to acid base balance in the body.

T_9 Describe and discuss oxidation-reduction as related to the biological oxidation-reduction reactions taking place in the mitrochondria of cells.

T_{10} Analyze solutions related to solvent action in digestion.

T_{11} Evaluate colloids as related to the nature and properties of proteins, amino-acids and nucleic acids.

T_{12} Discuss covalent compounds as related to the types of bonds that must be broken and rearranged in the formation of high energy phosphate bonds.

T_{13} Analyze fat emulsifications.

T_{14} Explain the various classes of organic compounds: hydrocarbons, alcohols, ethers, cyclic and heterocyclic compounds.

T_{15} Relate organic compounds to carbohydrates, fats, proteins, vitamins and hormones.

VIII. Course Outline and Schedule of Instruction

A. Course Outline

1. Fundamental Concepts
   a. Units of measurements: metric and English systems
   b. Temperature scales
2. Matter and Energy
   a. Definition, properties, states of matter
   b. Composition of matter
      1) Elements
      2) Compounds
      3) Mixtures

c. Energy

3. The Atom

a. Fundamental particles

b. Atomic numbers and atomic weights

c. Isotopes

d. The periodic chart

4. Chemical Bonding

a. Molecules

b. Electrovalence and covalence

c. Radicals

d. Formula writing

5. Chemical Equations

a. Balancing chemical equations

b. Types of chemical reactions

c. Factors affecting reactions rates

6. The Gas Laws

a. Boyle's law

b. Charles' law

c. Dalton's law

d. Pressure - temperature relationship

7. Oxidation - Reduction

a. Oxygen

1) Properties

2) Combustion

3) Uses of oxygen

b. Oxidation and oxidizing agents

c. Reduction and reducing agents

d. Medical importance of oxidation - reduction

8. Water
    a. Structure of water molecule
    b. Chemical and physical properties of water
    c. Purification of water
    d. Hydrolisis
    e. Hardness in water
9. Liquid mixtures
    a. Solutions
    b. Suspensions
    c. Colloids
    d. Emulsions
10. Acids and Bases
    a. Acids
    b. Bases
    c. pH values
11. Salts
    a. Solubility of salts
    b. Reaction of salts
    c. Types of salts
    d. Uses of salts
    e. Buffer solutions
12. Ionization
    a. Theory of ionization
    b. Strong and weak electrolytes
    c. Importance of ions in body chemistry
13. Introduction to Organic Chemistry

   a. Comparison of organic and inorganic compounds
   b. Structural formulas
   c. Isomers
   d. Bonding ability of carbon

14. Hydrocarbons
   a. Methane series
   b. Ethene series
   c. Ethyne series
   d. Uses of hydrocarbons

15. Alcohols
   a. Properties of alcohols
   b. Uses of alcohols
   c. Types of alcohols

16. Ethers
   a. Nomenclature
   b. Uses of ethers: anesthetics

17. Aldehydes
   a. Nomenclature
   b. Uses of aldehydes
   c. Test for aldehydes

18. Ketones
   a. Nomenclature
   b. Uses of ketones

19. Organic Acids
   a. Nomenclature
   b. Properties and reactions of organic acids
   c. Medically important organic acids

20. Esters
    a. Nomenclature
    b. Medical uses of esters
21. Amines
    a. Definition and types of amines
    b. Amino acids
22. Cyclic Hydrocarbon Compounds
    a. Types of cyclic compounds
        1) Aromatics
        2) Non-aromatics
    b. Benzene and its derivatives
23. Heterocyclic compounds
    a. Common heterocycles compounds
    b. DNA & RNA
    c. Alkaloids
        1) Definition
        2) Medicinally used alkaloids

B. Schedule of Instructional Periods

Period	Hours	Topic
1	1.5	Fundamental Concepts
2	1.5	Matter and Energy
3	1.5	The Atom
4	1.5	Chemical Bonding
5	1.5	Chemical Equations
6	1.5	Chemical Equations (Cont.)
7	1.5	First Partial Exam (100 points)

Period	Hours	Topic
8	1.5	The Gas Laws
9	1.5	Oxidation - Reduction
10	1.5	Oxidation - Reduction (Cont.)
11	1.5	Water and Liquid Mixtures
12	1.5	Liquid Mixtures (Cont.)
13	1.5	Second Partial Exam (100 points)
14	1.5	Acids-Bases-Salts
15	1.5	Ionization
16	1.5	Inorganic Chemistry final exam (200 points)
17	1.5	Introduction to Organic Chemistry
18	1.5	Hydrocarbons
19	1.5	Alcohols and Ethers
20	1.5	Third Partial Exam (100 points)
21	1.5	Aldehydes-Ketones-Organic Acids
22	1.5	Esters-Amines
23	1.5	Cyclic and Heterocyclic Compounds
24	1.5	Organic Chemistry Final Exam (200 points)

IX. Teaching Methods: Lectures, Demonstrations

X. Evaluation:

1. Periodical Quizzes
2. Three partial tests (100 points each)
3. Two final tests (200 points each), one at the end of the phase on Inorganic Chemistry and the other at the end of Organic Chemistry.

XI. Prerequisite Course: None (High School chemistry as an entrance requirement)

XII. Textbook:

Sackheim, George I. and Schultz, Ronald M.
Chemistry for the Health Sciences (Latest Edition)

XIII. References:

Mortimer, Charles E.
Chemistry: A Conceptual Approach (Latest Edition)

Griffin, Rodger W.
Modern Organic Chemistry (Latest Edition)

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Puerto Rico Experimental Model Dental Auxiliary Training Program

I. Course Number:
II. Course Title: Clinic I
III. Credit Hours: 4
IV. Clock Hours: 132
V. Methodology: Clinic
VI. Course Description:

Clinical course provides the opportunity for students to develop those skills necessary for performing an oral prophylaxis and patient education. Students will also apply correct techniques for gathering of diagnostic data pertinent to the delivery of oral hygiene services.

VII. Objectives:

A. General

Clinical sessions will enable the student to:

1. utilize and apply with accuracy the basic principles of instrument design in the performance of an oral prophylaxis.
2. utilize and apply with accuracy the knowledge from related basic and dental sciences for the gathering of diagnostic data such as health histories, oral inspections, and oral health indices.

B. Operational

Students in providing dental care will treat a minimal number of patients with the following proficiency levels:

1. obtain 5 medical and dental histories, utilizing the interview-questionnaire method with 100% accuracy that must indicate the following medical problems which can complicate dental treatment:

Allergy
Rheumatic fever
High blood pressure
Pregnancy
Bleeding problems
Anxiety
Medication
Diabetes
Kidney or liver disease
Heart disease
Respiratory disease
Venereal disease

2. perform 5 complete oral inspections and examinations with 100% accuracy to include the following:
    a. Extraoral:
        1) swelling of the neck
        2) irregular movements of the T.M.J.
        3) swelling or asymmetry of the face
    b. Intraoral:
        1) alteration in surface anatomy: ulcer, hypertrophy, atrophy
        2) textures: soft and hard
        3) color: red, white, pigmented
3. chart 3 oral conditions other than periodontal involvements with 100% accuracy to include the following:
    a. missing teeth
    b. existing restorations
    c. pit and fissure defects
    d. oral habits

    radiographic evidence of:
    a. interproximal caries
    b. impacted third molars
    c. radio-opaque and radiolucent abnormalities
4. classify 3 occlusions utilizing "Angle's classification" with 100% accuracy to include the following:

    Class I
    Class II a   Class II b
    Class III
    Over bite, cross bite and overjet

5. evaluate 10 prophylaxis cases to classify as 1, 2, 3 or 4 in accordance with given standards through a thorough soft and hard tissue examination to an 80% accuracy.
6. maintain asepsis to prevent disease transmission from patient to patient at all times with 100% proficiency to include the following:
    a. sanitize air syringe tip
    b. protective head rest cover
    c. sanitize bracket table
    d. protective cover on spot light handle
    e. maintain chain of sterility
7. take precautionary measures to prevent diesase transmission from operator to patient with 100% accuracy to include the following:
    a. use of face mask when indicated
    b. short unpointed finger nails
    c. maintain chain of sterility
8. utilize instruments by employing correct grasp, fulcrum and stroke causing least undue trauma and/or laceration 100% of the time to include
    correct operator-patient position
9. remove all soft and hard deposits from all exposed tooth and/or root surfaces on 12 patients with a minimum proficiency of 80% to include the following:

        4 class 1 patients
        4 class 2 patients
        4 class 3 patients

10. Develop an oral health program for his patients designed with an 80% proficiency to meet patient's individual needs and including the following:
    a. educational and motivational aids
    b. clinical preventive treatment
11. chart 1 periodontally involved oral condition with 80% accuracy to include the following:
    a. perio pocket measurement
    b. furcation involvement
    c. tooth mobility
    d. mucogingival involvement
    e. oral health indices, plaque, bleeding point, periodontal

VIII. Course Outline and Schedule of Instruction (see pre-clinical course outline)

IX. Teaching Methods:

Clinical work

X. Media:

Treating patients under supervision of dental auxiliary faculty.

XI. Evaluation:

See attached evaluation form.

(patient requirements) 4 class I patients
4 class II patients
4 class III patients

XII. Prerequisite course:

See courses of Level I, Track A and B
All courses first trimester of Level II

XIII. Textbook:

Wilkins, Esther, "Clinical Practice of the Dental Hygienist"
Lea and Febiger, Phila., 4th Ed., 1976

Students will rotate through Operative Dentistry clinics 1/2 a day every other week or 24 hours a trimester.

The same evaluation criteria utilized in the 01 year curriculum for restorative clinic will be used.

D.H. PERIO. CLINIC EVALUATION SHEET

Patient________________ Record No.__________ Date__________

Student________________ Time started________

Instructor________________ Minimum 80% (each procedure)

PROCEDURE	Possible points	Total pts. earned
I. Medical History Criteria 1. previous history of disease 2. taking medications 3. allergies 4. systemic conditions	12	___ ___ ___ ___
II. Dental History A. Clinical Findings 1. soft tissue: a. color b. consistency c. texture d. exudate	4	___ ___ ___ ___
2. Occlusion: a. max-mand relationship b. occlusal disharmony	2	___ ___
3. Hard tissue: a. caries b. calculus c. hypoplasia d. wear facets e. fractures f. inclinations	6	___ ___ ___ ___ ___ ___
4. pain: a. percussion b. hot or cold c. toothache	3	___ ___ ___

PROCEDURE	Possible points	Total pts. earned
5. Habits: a. tongue thrust b. digital sucking c. others	3	___ ___ ___
6. T.M.J. a. clicking b. deviant closing	2	___ ___
B. Radiological Findings: 1. pathologic findings 2. vertical bone 3. horizontal bone loss 4. lamina dura 5. P.D. membrane space 6. retained roots 7. impactions 8. fractures 9. root size and shape 10. supernumerary teeth	10	___ ___ ___ ___ ___ ___ ___ ___ ___ ___
Remarks:		

PROCEDURE	Possible points	Total pts. earned
C. Patient Oral Hygiene Home Care:	6	
1. type of toothbrush		____
2. Brushing habits		____
3. Use of floss		____
D. Perio Findings: (charting)		
1. Perio pocket measurement	6	____
a. correct insertion		____
b. correct reading (within 1 mm)		____
2. Furcation Involvement	3	____
3. Tooth mobility (within 1 mm)	6	____
4. Mucogingival involvement	2	____
III. Prophylaxis:		
A. Scaling	5	____
B. Polishing	5	____
C. Oral Health Inst.	4	____
1. Debris index		____
2. Plaque Removal technique		____
3. a. toothbrushing		____
b. flossing		____
c. other aids		____
IV. Anesthesia:		
A. Correct application of topical	1	____
B. Use of sterile technique	1	____
C. Comprehensive knowledge of anatomical landmarks	3	____
D. Comprehensive knowledge of nerves to be anesthetized	3	____

PROCEDURE	Possible points	Total pts. earned
V. Operation:		
1. Organization:	3	____
a. correct set-up		____
b. instrument sharpness		____
c. evaluation sheets		____
2. Neatness:	5	____
a. uniform		____
b. shoes		____
c. nails		____
d. make-up		____
e. jewelry		____
3. Self Confidence	3	____
4. Use of time	2	____
5. Comprehensive knowledge	3	____
6. Patient Handling:	4	____
a. consideration		____
b. rapport		____
c. interest		____
d. responsibility		____

Remarks:

PROCEDURE	Possible points	Total pts. earned	PROCEDURE	Possible points	Total pts. earned
VI. Root Planing and Curettage A. Instrumentation 1. Uses fulcrum, mirror light, and air	4	___ ___	VI. Root Planing and Curettage A. Instrumentation 1. Uses fulcrum, mirror light, and air	4	___
2. Uses correct grasp and correct strokes with curets	3	___	2. Uses correct grasp and correct strokes with curets	3	___
3. Uses correct curet according to the area being worked on	1	___	3. Uses correct curet according to the area being worked on	1	___
B. Treatment 1. Root planing a. planed root surfaces feel smooth and hard	15	___	B. Treatment 1. Root planing a. planed root surfaces feel smooth and hard	15	___
C. Curettage 1. Necrotic tissue removed	5	___	C. Curettage 1. Necrotic tissue removed	5	___
2. Rounded, even gingival margins	5	___	2. Rounded, even gingival margins	5	___
3. Minimal bleeding and trauma	5	___	3. Minimal bleeding and trauma	5	___
___quadrant	total	___	___quadrant	total	___
VI. Root Planing and Curettage A. Instrumentation 1. Uses fulcrum, mirror light, and air	4	___ ___	VI. Root Planing and Curettage A. Instrumentation 1. Uses fulcrum, mirror light, and air	4	___
2. Uses correct grasp and correct strokes with curets	3	___	2. Uses correct grasp and correct strokes with curets	3	___
3. Uses correct curet according to the area being worked on	1	___	3. Uses correct curet according to the area being worked on	1	___
B. Treatment 1. Root planing a. planed root surfaces feel smooth and hard	15	___	B. Treatment 1. Root planing a. planed root surfaces feel smooth and hard	15	___
C. Curettage 1. Necrotic tissue removed	5	___	C. Curettage 1. Necrotic tissue removed	5	___
2. Rounded, even gingival margins	5	___	2. Rounded, even gingival margins	5	___
3. Minimal bleeding and trauma	5	___	3. Minimal bleeding and trauma	5	___
___quadrant	total	___	___quadrant	total	___

PROCEDURE	Possible points	Total pts. earned	PROCEDURE	Possible points	Total pts. earned
VII. Evaluation of Case (written report)			Remarks:		
1. Preparation	5	____			
a. follow given outline format					
b. be concise and neat	5	____			
2. Comprehensive knowledge					
a. recommendations	5	____			
b. referrals	5	____			

EVALUATION FORM

Student's Name________________________ Date____________________

Patient's Name________________________ Age_____ Record No.____________

Case Classification by Student____

____

Instructor's Signature______________________

Performance Level Classification__________ Case Classification____________

Scores

_____ 1. Case Classification ______(0-3-5) Oral Exam (5)________
Medical History (5) ______

_____ 2. Oral Health Program ______
use of educational and motivational aids (1-5)________
preventive treatment plans (1-5)________

_____ 3. Ethical behavior (5)______ (Outstanding additional 1-5)__________

cubicle preparation (1) _____ aseptic techniques (1) __________
neatness & appearance (1)_____ attitude towards patient and
professional attitude (1)_____ supervisors (1) _________

_____ 4. Scaling

supragingival
subgingival

Possible points________

_____ 5. Polishing

stains
non calcified deposits

_____ 6. Charting (5)________

regular ________
Periodontal______

TOTAL POINTS

POSSIBLE NUMBER OF POINTS__________

_____

Possible number of points to be earned in items No. 4 and 5 are determined as follows:

No. of teeth X case classification
(see chart on reverse side for case classification)

Example: 20 teeth X case classification 3 = 60 pts. possible

Soft Deposits

8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8
8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8

Hard Deposits

8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8
8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8

I. Levels of Performance Grading

1. Level I

   a. calculus - deduct 2 points for every 1 area left
   b. soft deposits and/or stains - deduct 1/2 point for every area left

2. Level II

   a. calculus - deduct 2 points for every 1 area left
   b. soft deposits and/or stains - deduct 1 point for every 1 area left

3. Level III

   a. calculus - deduct 3 points for every 1 area left
   b. soft deposits and/or stains - deduct 1 1/2 points for every 1 area left

II. Classification of Patients (See Chart)

CHART FOR CASE CLASSIFICATION

	CLASS 1	CLASS 2	CLASS 3	CLASS 4	CLASS 5
Gingivitis	none to mild	mild	moderate	severe	severe
Periodontal Disease	none	none	mild to moderate localized	severe localized	severe
Non Calcified Deposits and Stains	none to light	medium	medium	heavy	heavy
Calcified Deposits	1	1 - 2	2 - 3	3 - 4	4 - 5

During treatment the case classification may be changed by faculty, if the case presents difficulties not anticipated. The student must request and justify such change.

NOTE: In cases of fifteen (15) or less natural teeth, the case classification will be lowered by one.

Criteria for Calcified Deposits:

Type and extension will determine the classification according to the degree of difficulty.

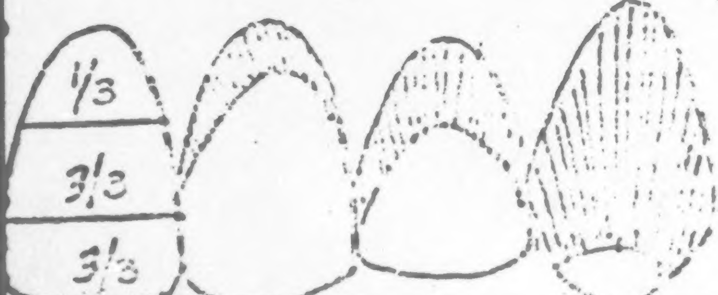
1. No calculus or light supra gingival calculus
2. Supragingival: Light
   Location: lower anterior and/or maxillary posterior teeth
   Subgingival: none to isolated deposits
   Location: on no more than eight (8) teeth
3. Supragingival: medium
   Location: generalized
   or
   Supragingival: heavy
   Location: lower anteriors and/or on no more than other eight (8) teeth

   Subgingival: isolated
   Location: generalized
4. Supragingival: heavy
   Location: generalized
   Subgingival: isolated (found in different areas throughout mouth)
   Location: generalized
   or
   Supragingival: none to medium
   and
   Subgingival: continuous
   Location: no more than eight (8) teeth
5. Supragingival: heavy
   Location: generalized
   Subgingival: and/or continuous
   Location: generalized

Note:

Supragingival calculus	Criteria
light	following gingival margin 1 mm or less
medium	2 mm or less of tooth & exhibiting thickness
heavy	1/2 the tooth or more & exhibiting thickness

Non Calcified deposits	Criteria
light	soft deposits or stains covering not more than 1/3 of tooth
medium	soft deposits or stains more than 1/3 of tooth but not more than 2/3 of exposed tooth
heavy	non calcified deposits or stains covering more than 2/3 of exposed tooth



Appt. No.	Date	Service Rendered	Instructor	*Points deducted Sealing

Instrumentation

Tissue State

Time:

In:

Out:

* 1-5 points - will be deducted for:

a. improper instrumentation
b. traumatized tissue
c. utilization of time

Dietary Analysis 1 - 5 points
    Fermentable CHO
    A. 1. types
        2. frequency
        3. time of use
        4. consistency
        5. quantity
    B. Acid production 1 - 3 points
    C. Alternatives 1 - 3 points

Comments:

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Puerto Rico Experimental Model Dental Auxiliary Training Program

I. Course Number:

II. Title: Special Needs Patients

III. Credit Hours: 2

IV. Clock Hours: 24

V. Methodology: Lectures-discussion
Guest Interviews
Demonstration
Real World Experiences
Reports
Group Work
Problem Solving
Role Playing

VI. Course Description:

This course is intended to provide the second year dental auxiliary student with basic knowledge and skills in the treatment of handicapped patients. It consists of didactic and practical experiences related to management and treatment of handicapped patients.

Emphasis will be placed in the development of professional judgement as it relates to the special needs of handicapped patients.

VII. General Objectives:

Upon the completion of the course, the dental auxiliary student will:

--develop the appropriate knowledge relative to the nature and characteristics of handicapped patients.

--provide quality oral hygiene treatment to handicapped patients, showing patience, understanding and reassurance toward them.

Topic	Objectives	
	The student will:	
Handicapping Conditions	T_1	Identify and explain the nature and scope of handicapping conditions.
	E_1	List and explain causes, sign and symptoms of handicapping conditions.
	E_2	Explain the psychological approach to be used with handicapped patients.
	E_3	Ennumerate special armamentaria needed.
Mental Retardation	T_2	Identify and explain the nature of mental retardation.
	E_1	List and explain causes, signs and symptoms of mental retardation.
	T_3	State how dental hygiene care and patient education procedures are modified for the patient with mental retardation.
	E_1	Explain ideal management of a retarded patient in the first visit.
	E_2	Indicate oral habits in the retarded patient that frequently cause difficulty in treating dental problems.
	E_3	Describe techniques for approaching and managing a retarded patient considering environment, training and parental attitude.

T_4 Design, implement and evaluate an educational program of preventive dentistry with emphasis in home care for a mentally retarded patient.

E_1 Assess patients' needs.

E_2 Develop an action plan.

E_3 Implement action plan .

E_4 Evaluate results of action.

Deaf-mute
Blind and
Learning Disabilities

T_5 Evaluate techniques and precautions used in the approach and treatment of deaf-mute, blind and patients with learning disabilities.

E_1 Describe the physical and psychological characteristics of a deaf-mute patient.

E_2 Describe the physical and psychological characteristics of a blind patient.

E_3 Describe the physical and psychological characteristics of patients with learning disabilities.

E_4 Identify 5 characteristics suggesting hearing impairement.

E_5 Identify the characteristics in a patient suggesting learning disabilities.

E_6 Explain precautions for management and treatment of a deaf-mute patient.

E_7 Explain precaution for management and treatment of a blind patient.

		E_8 Explain precautions for management and treatment of patients with learning disabilities.
Neumuscular Diseases	T_6	Explain the different types of neuromuscular diseases and the problems which these patients might present when provided oral hygiene care.
		E_1 Describe the major types of neuromuscular diseases.
		E_2 Describe the ideal patient management in each condition.
Cleft Palate and Cleft Lip	T_7	Develop a plan for treatment of a cleft palate and cleft lip patient.
		E_1 Identify the physical developmental defects in the oral cavity of cleft palate and cleft lip patients.
		E_2 Identify the physical and emotional problems associated with the cleft palate and cleft lip patient.
		E_3 State the modifications of oral hygiene care procedures for a cleft lip and cleft palate patient.
Oral Cancer	T_8	Indicate the importance of early detection and

prompt treatment in oral cancer.

E_1 List 3 predisposing factors for oral cancer.

E_2 List 5 warning signs of oral cancer.

E_3 Point out the steps necessary for a patient's self exam.

Diabetes

T_9 Analyze precautions taken before, during and after dental hygiene treatment for a patient with diabetes.

E_1 Define the diabetic syndrome.

E_2 State the psychological factors affecting a diabetic patient.

E_3 Explain the importance of diabetic control before starting oral health treatment.

E_4 Relate oral tissue infection and the control of diabetes.

Cardiovascular Diseases

T_{10} Explain the different types of cardiovascular diseases and the problems which these patients might present when provided with oral hygiene care.

E_1 Describe the major types of cardiovascular diseases.

E_2 Explain etiology and symptoms of congenita heart disease.

E_3 Explain the importance of premedication before treating a patient with cardiovascula disease.

E_4 Name 3 coronary heart diseases.

E_5 Name symptoms of artherioesclerosis and artherioesclerotic heart disease.

E_6 Describe symptoms of angina pectoris.

E_7 State 3 symptoms of hypertensive heart disease.

E_8 Analyze the physical and psychological handicaps of a cardiac patient.

Patient Education in cardiovascular conditions

T_{11} Describe techniques in oral hygiene care of cardiovascular patients.

E_1 Describe modifications of dental hygiene procedures to avoid patient's anxiety.

E_2 Describe precautions taken in performing scaling, curettage and oral prophylaxis.

E_3 Develop a plan for teaching preventive procedures in plaque control and oral physiotherapy for a cardiac patient attendant.

Hematological Diseases

T_{12} Explain etiology, characteristics, and dental hygiene care for patients with hematological diseases.

E_1 Define hematological diseases.

E_2 List the most common hematological diseases.

E_3 Explain the importance of preventive and prophylactic dental hygiene care for patients with hematological conditions.

Addiction

T_{13} Describe the precautions that should be taken in the management and treatment of a drug addict or alcoholic patient.

E_1 Explain the importance of premedication for oral treatment.

Aging

T_{14} Interpret to the aging patient the realistic expectation of his or her dental treatment.

E_1 Describe the psychological and physiologic aspects of aging.

E_2 Detect oral changes due to the aging proce

E_3 Explain the modifications in motivational techniques for aging patients.

T_{15} On completion of the course after visiting dental clinic for special patients, give a brief verbal evaluation of 2 dental clinics for handicapped patients.

E_1 As a result of observations in dental clinic analyze procedures used for management of handicapped patients.

E_2 Assess special equipment for treatment.

E_3 Evaluate oral hygiene treatment.

T_{16} At the completion of the course show confidence in dealing with special patients.

VIII. Course Outline and Schedule of Instructional Periods.

Periods	Hours	Topic
1	2	Course introduction and projection of the film "Techniques for managing the handicapped child in the dental office ".
2	2	Nature and scope of the problem of handicapping conditions. Special armamentaria.
3	2	Mental Retardation.
4	2	Mental Retardation.
5	2	Deaf-mute patient. Blind. Learning disabilities.
6	2	Neuromuscular diseases. 1. Parkinson's 2. Minimal brain damage 3. Epilepsy
7	2	Neuromuscular diseases. 1. Cerebral palsy 2. Muscular distrophy 3. Multiple sclerosis
8	2	Mid-Term
9	2	Cleft Palate. Cleft Lips.
10	2	Hematological diseases.
11	2	Aging. Addiction.
12	2	Final Test.

IX. Method of Evaluation

1. Written achievement tests on theoretical knowledge as follows:

a. diagnostic test to determine previous knowledge before exposure to course.

b. one mid-term exam, 40%

c. one written examination at the conclusion of the course, 45%

2. A written report assigned to each student based on the practical experience provided by visits to dental clinics and institutions providing services to handicapped patients. 15%

3. Questionaries will be given to the students before and after the course in order to asses attitudes.

4. Escala para evaluación del proceso enseñanza, aprendizaje de la Dra. Miguelina Hernández.

X. Audiovisual Aids

1. Film: Techniques for Managing the Handicapped Child in the Dental Office.

2. Slides: Special equipment needs in the treatment of the handicapped patient.

XI. Bibliography

Hand outs:

1. The Handicapped Patient in Dental Practice, Joseph R. Jedrychowski, D.D.S., Dental Hygiene, Vol. 50, p. 165-167, April 1976

2. The Role of Oral Hygiene in a Patient with Idiopathic Aplastic Anemia, John T. Slamp, D.D.S., M.S., J. A.D.A., Vol. 88, p. 1025-1027, May 1974

3. The Handicapped Child as a Dental Problem, Kenneth Charles Troutman, D.D.S., Temple Dental Rev. 40-4-11, 1970

4. The Hemophiliac: Prevention is the Key -- Mimeographed

5. The Bean Bag Chair and the Pedodontic Patient with Cerebral Palsy, Jackeline J. Chromer, R.H.D.

6. Dentistry for the Handicapped: A Neglected Responsibility, Melwin Choy, D.D.S., William Hilton, D.D.S. Dental Student, p. 19-25, December 1972

7. Adjuncts in the Dental Treatment of the Handicapped, Robert L. Holle, D.D.S., p. 469-481

8. The Care and Treatment of Handicapped Children, Lawrence S. Esemberg, B.A., Journal of Dental for Children, p. 240-244, August 1976

9. Education of Retarded Children, Steven A. Forness, Ed. D., Ann J. Dis, Child, Vol. 127, p. 237-242, February 1974

10. El Retardado Mental, Su Naturaleza y sus Necesidades Educativas, Departamento de Instrucción Pública -- Mimeografiado

11. Bandura, A: Principles of Behavior Modification, New York, Halt, 1969 Chapter 3

12. Lutchins, A.S. and Luchins, E.H.: Imitation by Rote and Understanding Journal of Social Psychology, 54: 175-197, 1961

13. Skinner, B.F. Science and Human Behavior, New York: McMillan, 1953

14. Dental Care for the Deaf Child, p. 643-650
An Introduction to Dentistry for the Blind, p. 651-671
Office Management of the Ambulatory Patient, p. 671-681

15. The Interrelationship of Speech Therapy and Prostheses for the Handicapped Child, p. 723-733

16. The Dental Clinics of North America, Vol. 18, Number 3, July 1974
Symposium on Dentistry for the Handicapped Child

UNIVERSIDAD DE PUERTO RICO, RECINTO DE CIENCIAS MEDICAS G P O BOX 5067 SAN JUAN, PUERTO RICO 00936 — TEL. 767-9626

COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Puerto Rico Experimental Model Dental Auxiliary Training Program

I. Title of Course: Biochemistry and Nutrition

II. Number: ADHP 116b

III. Credit Hours: 3

IV. Clock Hours: 36

V. Methodology: Lectures, discussion sessions, limited laboratory, written exercises

VI. Description:

This course provides the student with basic information regarding the biochemical aspects of nutrients, their metabolic roles and interrelationship. The effects of lack, or excess on body tissues and nutrition requirements and distribution in foods is discussed. Techniques for the recording and evaluation of nutritional data and counseling of dental patients are amply discussed. The interrelationships of nutrients and dental health is thoroughly explained.

VII. General Purposes:

The basic purpose of the course is to assist the student in developing, understanding, and applying basic concepts of human nutrition.

VIII. Objectives:

A. Terminal

Upon completion of the course, students will achieve an appropriate understanding of both biochemical and nutritional aspects of nutrients and foods and utilize this knowledge in the interpretation of dietary histories and dietary counseling of dental patients.

B. Operational:

Throughout the various sections and upon completion of the course, students will:

1. Describe the process by which food is prepared for absorption.
2. Explain the chemical processes and name enzymes involved in digestion.
3. Given a specific nutrient or group of nutrients, the student can recall the major characteristics, functions, food sources and human requirements of these nutrients.
4. Describe 3 specific functions of these nutrients in oral tissue health.
5. Identify the structural formula of an amino acid.
6. Explain the basic concepts in protein: amino acids, peptide linkage, essential amino acid biological value of protein.
7. Recall the classification of amino acids according to structure and chemical properties.
8. Define metabolism, anabolism, catabolism, basal metabolism.
9. Identify the structural formula of carbohydrates.
10. Name type, food source and products of the hydrolysis of carbohydrates utilized by man.
11. Identify the glucosidic linkage.
12. Describe the general processes involved in the metabolism of carbohydrates: explain the differences of aerobic and anaerobic glycolisis and the amount of energy produced.
13. Explain how the process of glycolisis is related to caries formation.

14. Name the cariogenic foods and nutrients.

15. Name the cariostatic foods and nutrients.

16. Explain basic concepts of lipids: define fatty acid. saturated, polyinsaturated fatty acid and essential fatty acid.

17. Indicate the nutritional significance of fats and identify the pertinent and controversial issues about fat.

18. Name the classification of vitamins.

19. Analyze the specific roles of vitamins A, C. D and folic acid in tooth formation and maintenance.

20. List the macrominerals and the trace elements.

21. Explain thoroughly the nutritional roles of calcium, phosphorus, iron and fluor in oral health.

22. Name the four food groups and basic diet of the puertorican population.

23. List four foods included in each of the groups.

24. Record three nutrients contributed by each food group.

25. Compare the Puerto Rico Food Guide and the U.S. Food Guide.

26. Explain in his own words the meaning of a food guide.

27. Estimate the size of food portions commonly used--milk, cheese, ice cream, meat, eggs, beans, green and yellow vegetables, fruits, starchy vegetables, fats, cereals and sugar.

28. Classify foods according to food groups to which they belong.

29. Collect and arrange information in a 5-day diary food intake.

30. Assess dietary information (cualitative nutritional evaluation) using the four food groups.

Upon completion of a self-instructional package, the student should be able to:

31. Recognize cariogenic foods.
32. Classify type of succrose ingestion.
33. Evaluate frequency of succrose intakes.
34. Calculate number and types of succrose intakes.
35. Compute demineralization time of succrose intake: average per day.
36. Formulate a dietary plan (indirect approach) to help patient in the modification of his diet both in terms of food groups and succrose control.

IX. Evaluation Information

Description of expectations:

--For the tests, 75% minimum score.

--Grading of a written paper - "Diet Evaluation of a Dental Patient"

--Class attendance

--Participation in class discussions

--Test and written paper weighted equally

--Conduct of classes and testing procedures will emphasize memory. translation, interpretation and application of knowledge and skills.

Testing procedures

--Two partial and one final examinations

--Written paper

X. Course Outline and Schedule of Instruction

Period	Hours	Topic
1	1 1/2	Introduction and Course Overview Chemical Processes of Digestion and Absorption of Food. The Digestion Enzymes and Endocrine Glands.

Period	Hours	Topic
2	1 1/2	Chemistry of Proteins
3	1 1/2	Chemistry of Proteins Nutritional Value of Proteins
4	1 1/2	Chemistry of Fats and Other Lipids
5	1 1/2	Chemistry of Carbohydrates
6	1 1/2	Role of Carbohydrates in Human Nutrition
7	1 1/2	Interrelationships of C H O, Protein and Fat Metabolism
8	1 1/2	Energy Metabolism Energy Requirements and Energy Value of Foods
9	1 1/2	Partial Examination
10	1 1/2	Fat Soluble Vitamins
11	1 1/2	Vitamin C - Complex: B_1 Riboflavin, Niacin, B_{12} Folic Acid B_6
12	1 1/2	Vitamin B Complex: Biotin, Pantothenic Acid, Vitamin C
13	1 1/2	Introduction to the mineral elements: Calcium, Phosphorus, Magnesium, Iron, Copper
14	1 1/2	Fluor in Dental Health
15	1 1/2	Iodine and Other Trace Elements
16	1 1/2	Partial Examination
17	1 1/2	The Normal Diet. Food Guide for P.R. and Food Guide of U.S.
18	1 1/2	Laboratory Exercises: Food Portions, Measure and Weights, Dietary Record
19	1 1/2	Food Needs of Infants, Children and Adolescents
20	1 1/2	Food Needs in Pregnancy and Lactation Adequate Diet for the Aged
21	1 1/2	Cariogenicity of Different Foodstuffs
22	1 1/2	Diary Form of Recording Food Intake
23	1 1/2	Diary Form of Recording Sweet Intake
24	1 1/2	Evaluation of Dietary Information
25	1 1/2	Final Examination

XI. Texts and References

Required: Bogert, Briggs, and Callorony. Nutrition and Physical Fitness 9th Ed. 1973

Díaz-Collazo, H. Self-Instructional Package - Evaluation of Sucrose Intake of a Dental Patient. Nutrition Program, Medical Sciences Campus.

Sintes, J. Prevalencia de Caries Dentales en Niños de 7mo. Grado. Thesis, Nutrition Program, Medical Sciences Campus, 1974.

Díaz Collago, H. Potencial Cariogénico de los Alimentos. Bulletin ADA, Puerto Rico Chapter, 1976.

Optional: Taylor C.; Pye, D.F. Foundations of Nutrition. 6th. ed.

Harper H.A. Review of Physiological Chemistry 13th ed. 1972.

Sockheim, G.S., Schultz, R. Chemistry for the Health Sciences. 1970.

XII. Special Assignment:

Five-day dietary record and evaluation of sweet intake. Analysis and evaluation of nutritional information; recommendations and conclusions. Presentation of written paper and discussion with the instructor by appointment.

XIII. Resources:

Staff: Assistant Professor: Mrs. Hilda Díaz-Collago
1 self-instructional package
Food models
Textbook and References
Special Mimeographed materials and handouts
Standard measurement and wrighing equipment
"Nutrition Today" teaching aids (slides, charts, transparencies)

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: P. R. Experimental Model Dental Auxiliary Training Program

I. Course Title: Dental Public Health and Critique of Dental Literature

II. Number:

III. Credit Hours: 4

IV. Clock Hours: 48

V. Type of Course: Didactic

VI. Course Description:

This course is designed to provide the dental auxiliary student with knowledge skills and attitudes in the public health aspects of dental practice.

Emphasis will be placed on principles and methods of general epidemiology and statistics and intervention strategies as applied to dental health education. Students skills will be developed in the use, evaluation, and interpretation of scientific literature.

VII. Objectives:

A. General

At the completion of the course the student will:

1. analyze dental health needs and attitudes toward dental care of the community and suggest sound approaches to be taken for their correction.

2. be aware of her or his responsibility to look for alternatives and solutions to the health problems of the community in which he or she lives.

3. establish rapport with the consumer so that their needs may be identified according to the group perceptions.

4. develop awareness as to the importance of keeping informed

and up-to-date in the field of dental health through the study and interpretation of the scientific literature and development of the necessary skills for successful performance in this area.

B. Operational

T_1 Evaluate Charles Winslow's and Hanlon's definition of public health.

E_1 Identify the elements of public health as stated in each definition.

E_2 Relate prevention of disease and promotion of physical health.

E_3 Explain Winslow's concept of community efforts.

T_2 Explain the role of dental health auxiliary personnel in community setting.

E_1 Relate WHO and PAHO classification and functions for auxiliary personnel.

E_2 State the role of the dental auxiliary in primary and secondary prevention in a community health program.

T_3 Evaluate the concept of health and disease as a continuum.

E_1 Define health and disease as a continuum.

E_2 State the components of the ecological model.

E_3 Explain interdisciplinary nature of the health concepts.

E_4 Relate concepts of ecological model using Vens diagram.

E_5 Sketch by means of a diagram the ecological concept of health and disease as a continuum.

E_6 Give examples of host, agent, and environmental influences on the caries rate.

T_4 Analyze epidemiological concept and its relation to Public Health.

E_1 Define the term epidemiology.

E_2 Explain the components of epidemiological concept.

E_3 Relate epidemiology with:

a. Ecology
b. Sociology
c. Biostatics
d. Biology

E_4 State five applications of epidemiology in dental public health.

T_5 Value the importance of using biostatistics methodology in the health sciences.

E_1 State and explain the stages of the scientific method.

E_2 Discuss the stages in the planning process of a survey.

E_3 Evaluate the elements considered in the development of a survey.

T_6 Apply the epidemiological analysis of a multifactorial disease to dental disease.

E_1 Relate fluoride research to the four steps of epidemiological strategy.

E_2 Discuss dental caries as a chronic disease.

T_7 Apply fundamentals of descriptive biostatistics to the health field.

E_1 Define variable.

E_2 Differentiate qualitative and quantitative variables.

E_3 Give examples of the above mentioned terms.

E_4 Classify data in quantitative and qualitative scales.

T_8 Represent and interpret data in tables and graphs and prepare frequency distribution.

E_1 Construct a frequency distribution.

E_2 Point out advantages and disadvantages of frequency distribution.

E_3 Construct statistical tables including single variable, double variable, and more than two variables simultaneous classification.

E_4 Construct a bar graph, tendency graph, and histogram.

T_9 Evaluate the concept of universal and samples parameter and statistics.

E_1 Define and give examples of universe, sample, parameter and statistics.

E_2 Differentiate between concepts of universe and samples.

E_3 State the advantages and disadvantages of samples.

E_4 Explain the difference between statistics and a parameter.

E_5 State three types of probability samples.

E_6 List the important variables to be considered in choosing a sample.

T_{10} Summarize data classified according to qualitative and group and ungrouped quantitative variables.

E_1 Define the concept of rate.

E_2 Compute the most frequently used rates in Public Health Statistics.

E_3 Use adequately the annual report of Vital Statistics of Puerto Rico.

E_4 State the reasons why rates cannot sometimes be compared directly.

E_5 Given ungrouped data, calculate the arithmetic average, the medium and the mode.

E_6 Given a frequency distribution, compute the range, variance, and standard deviation.

E_7 State examples of the use of the normal curve in dental public health.

T_{11} Evaluate the concept of universe, samples, parameter and statistics.

E_1 Define and give examples of universe, sample, parameter and statistics.

E_2 Differentiate between concepts of universe and samples.

E_3 State the advantages and disadvantages of samples.

E_4 Explain the difference between statistics and a parameter.

T_{12} Evaluate the health indicators used to measure community health.

E_1 List direct and indirect health indicators.

E_2 State functions of both indicators.

E_3 Relate both indicators to one another.

E_4 Identify three limitations of health indicators in measuring community health.

E_5 Explain why the assessment of periodontal disease is more subjective than caries assessment.

E_6 State incidence of cleft lip and cleft palate in P.R.

E_7 List the factors which determine malocclusion as a public health problem.

T_{13} Explain the steps of epidemiological strategy.

E_1 Differentiate between descriptive, analytic, and cross section studies.

E_2 State at least three applications and three sources of descriptive epidemiology in dental disease.

E_3 State three sources of analytical epidemiology.

T_{14} Discuss the frame of reference that serves as the conceptual basis for the development of chronic and infectious diseases.

E_1 Differentiate between communicable disease and chronic non-communicable disease.

E_2 Describe the usual epidemiological development of such disease entities.

T_{15} Explain the different basic principles involved in the planning process.

E_1 State the basic principles of the planning process.

E_2 Explain the importance of program evaluation.

T_{16} Discuss the philosophy and objectives of the TEAM program.

E_1 Discuss the advantages of applying the TEAM philosophy to public health services.

T_{17} Evaluate a scientific article.

E_1 Name nine essential question used to guide critical evaluation of professional literature.

E_2 List and explain the components of a scientific article.

E_3 State the evaluation criteria used.

E_4 Name essential features of a hypothesis.

E_5 State the importance of defining important terms operationally.

T_{18} Explain how statistics prove to be of value in the evaluation of professional literature.

E_1 Identify the appropiateness of the descriptive statistics used in the document.

E_2 Describe the use of universe samples and stratify probability samples in the scientific article literature.

T_{19} Evaluate an abstract from a scientific research document.

- E_1 State criteria used for evaluating the document.
- E_2 Point out major findings of the researcher.
- E_3 Write a statement defining the problem presented.
- E_4 State the hypothesis presented.
- E_5 List the methods or procedures used by the researcher.
- E_6 Describe the results of the study presented.
- E_7 Explain the statistics concepts involved in analyzing the data.
- E_8 Discuss the results.
- E_9 Relate results and hypothesis.
- E_{10} Describe limitations of the study and implications for further research.
- E_{11} State facts you can use to replicate the study.
- E_{12} Identify the research bibliography.

T_{20} Develop an abstract from a scientific research document.

T_{21} Develop a review of the literature about a selected topic in the dental health field.

VIII. Schedule of Instructional Periods

Period	Hours	Topic
I	2	Course objectives Evaluation procedures Pre test Basic Public Health Concepts
II	2	Role of Dental Auxiliary in Public Health Health and Disease as a continuum-ecological model- Quiz
III	2	The Scientific Method-application to health science

IV	2	Epidemiological methods and biostatistics Quiz
V	2	Frequency measures
VI	2	Data collection
VII	2	Data Analysis Quiz
VIII	2	Public health surveys
IX	2	Health indicators Quiz
X	2	Epidemiology of oral disease-descriptive
XI	2	Epidemiology of oral disease Quiz
XII	2	Epidemiology of oral disease Survey of oral problems
XIII	2	Intervene strategies-administration
XIV	2	Basic elements in health program planning
XV	2	Post test
XVI	2	Basic concepts in classification and reporting data
XVII	2	Components of a scientific article Evaluative criteria for a scientific research document Quiz
XVIII	2	Bibliography Reporting
XIX	2	Preparation of an abstract
XX	2	Seminar discussion of research abstracts
XXI	2	Seminar discussion

The schedule of instructional period provides for six additional hours for field experiences.

IX. Evaluation:

Pre-test
Six periodical quizes
Post-test
Oral presentations
Written reports

X. Methodology:

Programmed lectures
Guest Interviews
Field Trips
Role playing

XI. References:

1. Critical Evaluation of Scientific Literature: Nine Essential Questions. Nancy Nulsen, PHH, MS Dental Hyg., Vol 48, Jan-Feb 1974.

2. How to Read a Scientific Article: Wittaker, James O., Recent Discoveries in Psychology, Philadelphia, Penn. WB Saunders Co., 1972, pp. V. IX.

3. The Community Dental Hygienist, Alice O. Ford, PDH BS, MPH, Dental Hyg., Vol 48 Nov-Dec 1974.

4. A Team Approach to Preventin of Dental Disease-Norman I. Geriu, Hygienist Association, March-April 1972

5. Dental Health Program for Indian Children, Susan L. Harrington, Dental Hygienist, Vol 49, Sept 1975

6. Deployment and Control Dental Auxiliaries in New Zealand and Australia, James M. Dunning, DNS, JADA, Vol 85, Sept 1972

7. The Interpretation of Data and the Evaluation of Scientific Literature, A.L. Russel, DDS, MPH in the Dentist, His Practice and His Community Under-Graduate Con-Course in Public Health and Bio-Social Sciences-School of Public Health Department of Administration of Community Health Services 1977.

8. Community Planning for Dental Care of the Chronically Ill and Disabled, Marvin P. Sheldon, DMD, MPH, Division of Special Health Services, U. S. Public Health Service, Washington 25, D.C.

9. Indicadores del Estado de Salud, Memografiado-Facultad de Ciencias Bio-sociales y Escuela Graduada de Salud Pública.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Puerto Rico Experimental Model Dental Auxiliary Training Program

I. Title: Seminar I
II. Course Number:
III. Credit Hours: 1
IV. Clock Hours: 12
V. Methodology: discussion
VI. Description:

Time will be devoted to discussion of any problem which may arise during the clinical experiences in the assigned clinics. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of each student.

VII. Objectives:

A. General

Acquire further experience in problem-solving situations related to their clinical experiences.

B. Operational

During these seminar sessions the student will:

1. demonstrate ability to problem-solve by verbalizing possible solutions to problems presented in class.
2. relate to classmates, a clinical experience that may have posed an unusual situation.

VIII. Schedule of Instruction

(refer to class schedule)

IX. Evaluation

Pass or fail - based on attendance and participation.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Puerto Rico Experimental Model Dental Auxiliary Training Program

I. Course Number:
II. Course Title: Clinic II
III. Credit Hours: 7
IV. Clock Hours: 252
V. Methodology: Clinic
VI. Course Description:

This clinical course provides the opportunity for students to develop those skills necessary for the treatment of patients with heavy calcified deposits and moderate to severe gingivitis. Students learn how to render preliminary treatment to patients with periodontitis and how to determine if patients require further periodontal treatment. Students also practice using ultrasonic scaling devices and charting oral conditions. In addition, students will also rotate through the Veteran's Administration Hospital dental clinic where they gain experience working with hospitalized patients; they rotate through the clinic of patients with special needs where they plan and carry out preventive dentistry plans for these patients.

VII. Objectives:

A. General

Clinical sessions will enable the student to:

1. develop those skills that are necessary for the treatment of more difficult patients including patients with periodontal involvement, hospitalized patients and patients with special needs.

B. Operational

Students in providing dental care will treat a minimal number of patients with the following proficiency levels:

1. demonstrate 80% proficiency in determining factors that influence individualized instruction including determination of oral hygiene status, periodontal health, basis for patient motivation and deposit retention factors.
2. chart hard and soft tissue recording normal and abnormal conditions, restorations, lesions and periodontal involvement, using radiographs and the periodontal probe with 80% proficiency.
3. evaluate with 90% proficiency a prophylaxis classification of Class I through Class V patients in accordance with given classification standards.
4. plan comprehensive treatment for 6 patients, with 80% proficiency including a preventive treatment plan and the following:
    a. systemic factors influencing treatment
    b. consultations with other departments
    c. referrals to other specialties.
5. perform an oral prophylaxis on 7 patients classified as Class IV or Class V with an 80% minimal proficiency which must be completed in 3 to 4 appointments unless otherwise specified by clinical instructor.
6. perform periodontal therapy on 6 patients for a total of 15 quadrants with a minimal proficiency of 80%.
7. evaluate with 80% proficiency the periodontal condition of patients who have received treatment, and determine those patients who need further periodontal treatment.
8. formulate revised oral health programs for patients seen on recall in light of the oral health status exhibited by these patients, 90% proficiency.

9. demonstrate the use of ultrasonic scaling devices in periodontal treatment with a 95% proficiency.
10. perform 3 dietary surveys with analysis of foods containing sucrose with a proficiency level of 90% to include the following:
    a. fermentable CHO
        1) types
        2) frequency of use
        3) time of use
        4) consistency
        5) quantity
    b. acid production
    c. alternatives to "sweets"
11. instruct periodontal patients in post operative care, 100% proficiency.

VIII. Course Outline and Schedule of Instruction (See Clinic I outline)

IX. Teaching Methods: Clinical work

X. Media: Treating patients under supervision of dental auxiliary program faculty.

XI. Evaluation: See attached evaluation form.

Patient requirements: minimum of 7 patients Class IV or Class V
6 patients (periodontal therapy) with
minimum of 15 quadrants.

XII. Prerequisite course: all courses summer trimester and first trimester Level I

XIII. Textbook:

Wilkins, Esther, "Clinical Practice of the Dental Hygienist
Lea and Febiger, Phila. 4th ed. 1976

Students will rotate through Operative Dentistry clinics 1/2 a day every other week or 24 hours a trimester.

The same evaluation criteria utilized in the 01 year curriculum for restorative clinic will be used.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Puerto Rico Experimental Model Dental Auxiliary Training Program

I. Title: Seminar II
II. Course Number:
III. Credit Hours: 1
IV. Clock Hours: 12
V. Methodology: discussion
VI. Description:

Time will be devoted to discussion of any problem which may arise during the clinical experiences in the assigned clinics. Emphasis will be placed on the sharing of clinical experiences in order to enhance the clinical exposure of each student.

VII. Objectives:

A. General

Acquire further experience in problem-solving situations related to their clinical experiences.

B. Operational

During these seminar sessions the student will:

1. demonstrate ability to problem-solve by verbalizing possible solutions to problems presented in class.
2. relate to classmates, a clinical experience that may have posed an unusual situation.

VIII. Schedule of Instruction

(refer to class schedule)

IX. Evaluation

Pass or fail - based on attendance and participation.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Program: Puerto Rico Experimental Model Dental Auxiliary Training Program

I. Course Number:

II. Title: Clinic III

III. Credit Hours: 9

IV. Clock Hours: 324

V. Methodology: Clinic

VI. Course Description:

This clinical course further expands the student's experiences in working with patients with heavy calcified deposits and patients with periodontal involvements. Students continue to rotate through the Veteran's Administration Hospital dental clinic and through the clinic of patients with special needs. Emphasis will be placed on the development of professional judgment.

VII. Objectives

A. General

Clinical sessions will enable the student to:

1. continue developing those skills that are necessary for the treatment of more difficult patients, hospitalized patients and patients with special needs.

B. Operational

Students in providing dental care will treat a minimal number of patients with the following proficiency levels:

1. demonstrate 90% proficiency in determining factors that influence individualized instruction including determination of oral hygiene status, periodontal health, basis for patient motivation and deposit retention factors.

2. chart hard and soft tissue recording normal and abnormal conditions, restorations, lesions and periodontal involvement, using radiographs and the periodontal probe on 8 patients with 90% proficiency.

3. evaluate with 90% proficiency a prophylaxis classification of Class I through V patients, in accordance with given classification standards.

4. plan comprehensive treatment for 6 patients with 90% proficiency including a preventive treatment plan and the following:
   a. systemic factors influencing treatment
   b. consultation with other departments
   c. referrals to other specialties

5. perform an oral prophylaxis on 9 patients classified as Class IV or Class V with an 80% minimal proficiency which must be completed in 3 to 4 appointments unless otherwise specified by clinical instructor.

6. perform periodontal therapy on 8 patients for a total of 19 quadrants with a minimal proficiency of 80%.

7. evaluate with 90% proficiency the periodontal conditions of patients who have received treatment, and determine those patients who need further periodontal treatment.

8. formulate revised oral health programs for patients seen on recall in light of the oral health status exhibited by these patients, 100% proficiency.

9. demonstrate the use of ultrasonic scaling devises in periodontal treatment with a 100% proficiency.

10. perform 3 dietary surveys by analyzing sucrose containing foods with a proficiency level of 100% to include the following:
    a. fermentable CHO
        1. types
        2. frequency of use
        3. time of use

    4. consistency
    5. quantity
  - b. acid production
  - c. alternatives to "sweets"

11. instruct periodontal patients in post operative care, 100% proficiency.

VIII. Course Outline and Schedule of Instruction (See Clinic II outline)

IX. Teaching Methods: clinical work

X. Media: Treating patients under supervision of dental auxiliary program faculty.

XI. Evaluation: same as Clinic I and II

Patients requirements: minimum of 9 patients Class IV or Class V
8 patients (periodontal therapy) with a
minimum of 19 quadrants

XII. Prerequisite Course: All courses summer trimester and first trimester Level I

XIII. Textbook:

Wilkins, Esther, "Clinical Practice of the Dental Hygienist",
Lea and Febiger, Phila., 4th ed. 1976

Students will rotate through Operative Dentistry clinics 1/2 a day every other week or 24 hours a trimester.

The same evaluation criteria utilized in the 01 year curriculum for restorative clinic will be used.

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Title: Business Module

Conceptual Framework and Rationale:

This module is an elective which presents basic concepts in typing, filing and bookkeeping procedures that the dental auxiliary can utilize for effective office management.

The concepts and procedures presented are designed to meet the needs of the dental auxiliary in her working environment.

The purpose of this learning experience is to offer the student the opportunity to broaden his/her background in office administration procedures in order to enhance the dental office management training previously received.

After completing this module the dental auxiliary will be able to maintain the office records in good order, maintain accurate and complete financial records and manage properly all accounts receivable.

Mastery of these office procedures will provide the dental auxiliary with the knowledge and skills necessary to perform as a secretarial assistant in the dental office.

This module is an option offered to students in conjunction with the Department of Education through the business and office educative program.

Description:

Module consists of an academic semester at the Technological Institute of San Juan that will prepare a dental auxiliary with the basic training in office administration procedures. An Extramural educational experience will also be included. It will consist of observation visits to different dental offices in which the student will observe the administrative procedures utilized.

Objectives:

This experience will provide the student with knowledge and skills utilized in the basic office administration procedures such as typing, filing and general office techniques. The extramural experience will enable the student to relate the basic offices procedures to the role of a dental auxiliary. Emphasis will be placed on third party payment systems in Puerto Rico.

Evaluation:

A minimum of 75% is necessary to pass the course.

Requirements for extramural:

Written report	70%
Oral report	30%

(See attached forms for criteria)

The extramural experience will be of a seminar type for one credit with a pass or fail grade.

OFFICE MANAGEMENT

Outline for written report

1. Type of Dental Practice
   - a. solo practice
   - b. group practice
   - c. work hours

2. Environment
   - a. location (geographic)
   - b. socio - economic factors
   - c. facilities (operatories, lab., office, etc.)
   - d. personnel (including dentist)

3. Office procedures
   - 1. Patient Management
     - a. new patients
     - b. recall patients
     - c. transient patients
   - 2. Office Management
     - a. appointments (advance planning, time used buffer time, recording of
     - b. average daily work load.
     - c. cancellations- how handled
     - d. record keeping
     - e. filing system- alphabetical, numerical, cross index
     - f. broken appointments- how controlled
     - g. bookeeping system- include payment system
     - h. recall system
     - i. supply ordering- how, when, where

4. Include in your written report:
   - 1. personal observations
     - a. interaction between office personnel
   - 2. personal evaluation of learning experience

If preventive program in effect - give highlights of program

*** Also include if some practice management plan in effect, eg. P.B.P. and explain in detail.**

GUIDELINES FOR EVALUATING ORAL REPORTS

Requirements:

1. limit to 1/2 hour
2. use of visual aids-~~i.e.~~, ~~type of patient record~~,-~~recall~~, ~~etc.~~
3. written material on index cards

Criteria:

Sources

Appropriate and valid data

Content and treatment

1. topic reported suitable to assignment
2. topic adequately covered
3. originality and creativity
4. evidence of sufficient investigation
5. language used accurately

Structure:

1. interesting beginning
2. recognizable parts or elements
3. summaries given as needed

Presentation:

1. observe time limits
2. maintain audience contact
3. speak easily - without relying heavily on notes
4. visualize or demonstrate as appropriate
5. at ease - in control of self
6. voice effective (emphasis,pacing)

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Title: Commercial Education (Typing)

Course Outline:

I. Introduction
   A. Importance and need
   B. Origin and evolution
   C. Equipment and materials
      1. Typewriters
         a) electric
         b) manual
         c)
            1) pica
            2) elite
      2. Desks and chairs
         a) types
         b) correct use
      3. Materials
         a) paper
            1) quality
            2) size
         b) carbon paper
            1) quality
            2) size
            3) uses

- II. Operating Parts
  - A. Identification
  - B. Location
  - C. Function
- III. Basic Techniques
  - A. Correct position
  - B. Mental and Physical relaxation
  - C. Correct stroke
  - D. Rythem and continuity
- IV. Introduction to keyboard
  - A. Alphabetical keys
    - 1. Guides
      - a) finger position
      - b) stroke
      - c) basic techniques
      - d) correct body position
      - e) correct finger movement
    - 2. Upper and lower finger reach
    - 3. Numerical keys
    - 4. Symbol keys
- V. Maintenance of typewriter
  - A. Daily care
    - 1. Parts to be cleaned
      - a) types and exterior
    - 2. Material and process

B. Erasures
  1. Movement of carriage to left or right.
C. Protection of typewriter
  1. correct manipulation of operating parts.
  2. management of electric cord.
  3. correct use of typewriter cover.
D. Change of ribbon
  1. procedure
  2. type of ribbon

VI. Development of typewriting skill
  A. Typewriter adjustments
    1. margins and tabulation
      a) calculation
      b) elimination
  B. Selection and use of materials
    1. Type
      a) paper
      b) commercial forms
      c) others
    2. Use
    3. Correct insection

VII. Development of basic skills
  A. Speed
    1. minimum of 20 words p.m.
  B. Errors
    1. maximum of 5 error in 5 minute tests.

VIII. Application of basic skills

- A. Preparation of letters, memos and agendas.
    - 1. nature of the documents
        - a) classification
        - b) characteristics
        - c) parts
    - 2. Document reading
        - a) data classification
    - 3. Style and punctuation
    - 4. Document writing
        - a) rythem and continuity
    - 5. Proof reading and correction
        - a) erasing techniques
        - b) grouping and spacing techniques
- B. Preparation of commercial forms
    - 1. types
        - a) billing
        - b) buying
        - c) requisitions
        - d) others
    - 2. procedures
        - a) identification
        - b) completion
- C. Tabulation
    - 1. classification
        - a) short

        b) medium
        c) large
    2. tabulation methods
    3. proof reading and correction
    4. preparation of drafts
        a) correction signs

D. Preparation of legal documents
    1. classification
    2. application of rules

E. Preparation of envelopes
    1. types
        a) #6 3/4
        b) #10
        c) window type

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Title: Commercial Education (Office Techniques)

Course Outline:

I. The Office

A. Importance and Function

1. Personnel

2. Advantages of office work

B. The office person

1. General abilities

a) language and communication

b) grammer and handwriting

c) commercial arithmetic

2. Specific abilities

a) typing

b) shorthand

c) accounting

d) filing

e) office machines

3. Personal qualities

a) cooperation

b) good criteria

c) ambition

d) ingenuity

e) willingness

        - f) responsibility
        - g) dedication
        - h) punctuality
        - i) cleanliness
    - 4. Personal appearance

II. Human Relations

- A. Importance
- B. Favorable reactions
- C. Auto evaluation
- D. Betterment of personal interelations
- E. Office etiquette

III. Visitors

- A. Functions of receptionist
- B. Classification
    - 1. frequent visitors
    - 2. family and friends
    - 3. associates and superiors
    - 4. unknown visitors
- C. Referrals
    - 1. registery
    - 2. concession
    - 3. cancelation
- D. Interviews
    - 1. management
    - 2. presentation

IV. Telephone communication

- A. Voice
  - 1. qualities
    - a) attentive
    - b) lively
    - c) natural
    - d) agreeable
    - e) clear
- B. Telephone manners
  - 1. curtesy
  - 2. punctuality
- C. Calls
  - 1. official
  - 2. personal
  - 3. outgoing
- D. Special systems
  - 1. dictaphone
  - 2. teletype

V. Mail and Telegraph Services

- A. Incoming mail
  - 1. received stamp
  - 2. openning method
  - 3. address check
  - 4. classification
    - a) letters

        - b) accounts and receipts
        - c) announcement and circulars
        - d) journals and magazines
    - 5. correspondence registry
- B. Outgoing mail
    - 1. presentation and signature
    - 2. address
    - 3. postage
- C. Postal Services
    - 1. air mail
        - a) 1st class
        - b) 2nd class
        - c) 3rd class
        - d) 4th class
        - e) special delivery
- D. Telegraph service
    - 1. telegrams
    - 2. day letter
    - 3. night letter
    - 4. money orders

VI. Financial registry

- A. Banking activities
    - 1. deposits
    - 2. checks
    - 3. endorsements

        - a) special
        - b) restrictive
        - c) in blank
  - B. Reconsiliation of monthly statement
  - C. Expense account
  - D. Petty cash
  - E. Payroll

VII. Copies

  - A. Process
    - 1. carbon copies
    - 2. Xerox copies
  - B. Equipment
    - 1. alcohol duplicators
      - a) corrections
      - b) advantages
      - c) disadvantages
    - 2. mimeograph
      - a) procedure
      - b) corrections
      - c) advantages
      - d) disadvantages
  - C. Offset systems

VIII. Office machines

  - A. Dictaphones
    - 1. uses

            - a) dictating procedures
            - b) transcribing procedures
    - B. Adding machines
        - 1. ten numerals
        - 2. complete set numerals

- IX. Employment
    - A. Selection
    - B. Sources of information
        - 1. schools
        - 2. friends
        - 3. employment agencies
        - 4. personnel office
        - 5. civil service
        - 6. classified ads
- X. The interview
    - A. Preparation
    - B. Behavior
- XI. First employment
    - A. Interpersonal relations
        - 1. with co-workers
        - 2. with superiors
        - 3. with public
    - B. Employment advancement

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COLEGIO DE PROFESIONES RELACIONADAS CON LA SALUD
DEPARTAMENTO DE AUXILIARES DENTALES

Title: Commercial Education (Filing)

Course Outline:

- I. Introduction
    - A. Definition
    - B. Objectives
    - C. Classification
        - 1. Alphabetical
        - 2. Numerical
        - 3. Geographical
        - 4. Business
        - 5. Others
- II. Alphabetical system
    - A. Rules
        - 1. Names
        - 2. Commercial firms
        - 3. Geographical names
        - 4. Organizations
        - 5. Agencies
        - 6. Correspondence
        - 7. Business and/or information
        - 8. Others
    - B. Materials
        - 1. Guides

        2. Identification signs

        3. Folders

    C. Filing procedures

III. Geographic system

    A. Uses

    B. Organization

        1. Main file

        2. Card catalog

    C. Systems

        1. Remington rand

        2. Shaw-Walker

IV. Number system

    A. Nature and uses

    B. Organization

        1. Main file

        2. Auxiliary file

        3. Inactive file or correspondence forms

    C. Advantages and disadvantages

V. Transfer, storage and conservation of documents

    A. Equipment and material

    B. Systems

        1. Permanent transfers

        2. Short term transfers

    C. Storage

    D. Conservation of documents

VI. Filing system

   A. Procedure

VII. Equipment and special systems

   A. Information cards

      1. Importance and nature of equipment

   B. Vertical files

   C. Open filing system

VIII. Equipment for the correspondence file

   A. Vertical file

   B. File stands

      1. fixed

      2. movable

   C. Gyrating equipment

   D. Electric equipment